



**The Statistical Office of the Slovak Republic**

**FINAL QUALITY REPORT  
STATISTICS ON INCOME AND LIVING CONDITIONS  
(EU SILC 2006-2009)**

**the Slovak Republic**

**November 2011**

# 1. COMMON LONGITUDINAL EU INDICATORS BASED ON THE LONGITUDINAL COMPONENT OF EU-SILC

## ***At persistent-risk-of-poverty rate by gender (60% median)***

*The share of persons with an equivalised total net income below the risk-of-poverty threshold in the current year and in at least two of the proceeding three years. Gender, age groups breakdown and total.*

**Table 1. At-persistent-risk-of-poverty rate by gender and age groups (60% median)**

Age groups	Total	Male	Female
Total	5.4	5.1	5.6
0-17 years	4.7	5.0	4.3
18-64 years	5.2	5.5	4.9
65+ years	7.1	2.1	9.7

## ***At persistent-risk-of-poverty rate by gender (50%median)***

*The share of person with an equivalised total net income below the 50% median equivalised income in the current year and in at least two of the preceding three years. Gender, age groups breakdown and total.*

**Table 2. At-persistent-risk-of-poverty rate by gender and age groups (50% median)**

Age groups	Total	Male	Female
Total	2.3	2.3	2.3
0-17 years	2.3	1.9	2.8
18-64 years	2.5	2.5	2.4
65+ years	1.3	1.6	1.2

## 2. ACCURACY

### 2.1. Sample design

#### ***2.1.1 Type of sampling design (stratified, multi-stage, clustered)***

One - stage stratified sampling was used in EU SILC 2006-2009. The proportional number of households was selected by simple random sampling in individual strata. In the first year of survey, households were selected in to the 4 rotational group on the fact that in each subsequent year of survey one rotational group was excluded and new one was added.

Sub-samples	2005	2006	2007	2008	2009
1	1. time				
2	1. time	2. time			
3	1. time	2. time	3. time		
4	1. time	2. time	3. time	4. time	
5		1. time	2. time	3. time	4. time
6			1. time	2. time	3. time
7				1. time	2. time
8					1. time

Stratified sampling was used for selection of households and in individual strata proportional number of households was selected by simple random sampling.

### **2.1.2 Sampling units (one-stage, two-stages)**

Households sharing of expenditures are the sampling units. Households sharing of expenditures are private households comprised of persons in dwelling who live and manage together, including sharing in ensuring living needs. As manage together we considered: share in covering the basic household costs (catering, housing cost, costs of electricity, gas etc.). The overall list of households sharing of expenditures and permanently occupied dwellings and houses is available on the base of data from the 2001 Population and Housing Census (acronym - SODB). Changes in the number of permanently occupied dwellings and houses within the period 2001-2004 and 2004-2008 were updated. The information on the number of allocation and reduction of dwellings and the announcement in regions of the Slovak Republic were used.

### **2.1.3 Stratification and substratification criteria**

In EU SILC 2006-2009 there were used two criteria of area stratification in the sampling design:

- geographical stratification (8 standard administrative regions corresponding to the European NUTS 3 level.)
- degree of urbanization: 7 groups according to population size of municipalities (number of inhabitants in municipalities).

Using these two stratification criteria there was created 48 strata (variable DB050).

From each stratum there were selected households sharing of expenditures through simple random sampling.

### **2.1.4 Sample size and allocation criteria**

Minimum effective sample size recommended by EUROSTAT for the Slovak Republic was 4 250 households for cross-sectional component.

Survey was carried out in 6016 households in the year 2005, in 6 025 households in the year 2006, in 5 840 households in the year 2007, in 5 879 households in the year 2008 and 5 988 households in the year 2009.

**Table 3. Numbers of selected households sharing of expenditures in longitudinal component 2006-2009**

NUTS 2		Drawn					Accepted (DB135=1)				
		2006	2007	2008	2009	Total	2006	2007	2008	2009	Total
SK01	Bratislavsky kraj	160	300	446	423	1 329	146	277	419	368	1 210
SK02	Zapadne Slovensko	541	1 046	1 474	1 469	4 530	442	920	1 460	1 333	4 155
SK03	Stredne Slovensko	384	760	1 076	1 067	3 287	335	698	1 062	1 002	3 097
SK04	Vychodne Slovensko	434	837	1 170	1 156	3 597	384	756	1 152	1 086	3 378
SK	Slovak Republic	1 519	2 943	4 166	4 115	12 743	1 307	2 651	4 093	3 789	11 840

### **2.1.5 Sample selection scheme**

The information on population, which was obtained from sampling frame, the information and the rules for proportional stratified sampling was used in creating of sample selection scheme for the year 2006.

Households were selected into new rotational group for the year 2007, 2008 as well as for the year 2009 by analogy as in the year 2006.

### **2.1.6 Sample distribution over time**

Survey for the year 2006 was carried out from the 3-rd April to 28-th April 2006.

Survey for the year 2007 was carried out from the 2-nd April to 30-th April 2007.

Survey for the year 2008 was carried out from the 1-st April to 30-th April 2008.

Survey for the year 2009 was carried out from the 1-st April to 30-th April 2009.

### **2.1.7 Renewal of sample: rotational groups**

In the first year of survey (EU SILC 2005) sample was divided into four rotational groups. There were approximately 1 500 households in each sub-group.

In the year 2006 households from the 1-st rotational group were replaced by new one, in the year 2007 it were households from the 2-nd rotational group, in the year 2008 it were households from the 3-rd rotational group and in the year 2009 it were households from the 4-th rotational group.

Sample size for longitudinal component for the Slovak Republic was 3 250 households, or 8 250 persons aged 16+ in accordance with recommendation of Eurostat.

As input data for creation of longitudinal component were households in 1-st rotational group for the year 2006 - 2009, households of 2-nd rotational group for the year 2007- 2009 and households of 3-rd rotational group for the year 2008- 2009.

**Table 4. Renewal of sample in longitudinal component 2006-2009**

DB075	Drawn				Accepted (DB135=1)			
	2006	2007	2008	2009	2006	2007	2008	2009
<b>Total</b>	<b>1 519</b>	<b>2 943</b>	<b>4 166</b>	<b>4 115</b>	<b>1 307</b>	<b>2 651</b>	<b>4 093</b>	<b>3 789</b>
<b>1</b>	1 519	1 516	1 246	1 204	1 307	1 239	1 197	1 122
<b>2</b>		1 427	1 417	1 425		1 412	1 415	1 289
<b>3</b>			1 503	1 486			1 481	1 378

## **Weightings**

### **2.1.8.1 Design factor**

The longitudinal component of EU-SILC started with the sample of the EU-SILC 2006 survey, where one - stage stratified sampling was used. The proportional number of households was selected by simple random sampling in individual strata. Each household had the same inclusion probability and the design weight is given by the total number of households in the sampling frame divided by the number of selected households.

### **2.1.8.2 Non-response adjustments**

The reduction of weight deviation caused by households that had been contacted (DB120=11); however refused the interview (DB135=2), was solved by the correction of weights in relation to the response rate, i.e. multiplying the weights by inverse value of response rate. The probability of response of each household is not known. We used dividing households into strata (region and rotational group) and we resulted from assumption that each household in stratum has the same probability of response. Then the empirical value of the response rate within the stratum gives the estimate of the probability of response for each household in the stratum.

### **2.1.8.3 Adjustments to external data (level, variables used and sources)**

- was realized by using method of simple calibration of household weights to get calibration variables, i.e. numbers of households sharing of expenditures in regions by number of household members
- in case of persons there were adjustments realized by using method of simple calibration of weights of household members to get calibration variables, i.e. number of persons in regions by age groups and by sex.

#### 2.1.8.4 Final longitudinal weight

##### General description of construction of longitudinal weights

Longitudinal data were created from household data, or persons of sampling network for cross-sectional data files. Sampling network for cross-sectional data files was constructed by rotational system. It was created by four rotational groups, where each rotational group was representative for whole population of SR.

Panel for longitudinal data file with two-years-duration was created by data on households or persons per three rotational groups of cross-sectional component, which in both years were equal.

Panel for longitudinal data file with three-years-duration was created by data on households or persons per two rotational groups of cross-sectional component, which in three years were equal.

Panel for longitudinal data file with four-years-duration was created by data on households or persons per one rotational groups of cross-sectional component, which in all four years was equal.

On the base of mentioned above results, that foundation for calculation of weights for longitudinal data files are weights estimated in cross-sectional data files. Calculation of cross-sectional weights was realised in accordance with recommendation of Eurostat and it was also the part of intermediate quality report.

Calculation of longitudinal weights for which as a foundation were cross-sectional weights per individual years was realised in accordance with recommendation of Eurostat too.

Fact that each rotational group is representative for whole population of SR allows following procedure of calculation of longitudinal weights.

- Cross-sectional weights per individual years were multiplied by 4 (then each one provides representative outputs for SR)
- Cross-sectional weights of each rotational group were adjusted by number of persons, who were removed from population by reason of death, migration out of country, moving out of private household to collective household or they had to be excluded from target population by other reasons. (Adjustment was carried out not only the base of implied inputs in cross-sectional survey, but also under external estimations of individual events for SR)
- Such mentioned weights were adjusted under total non-response and were calibrated to number of households in relevant years, calibration variables were numbers of households by number of household members in individual regions
- Weights of individual persons were adjusted in accordance with value of variable RB110 (Membership status)
- Weights were recalculated according to duration of longitudinal data files (taking into account that each rotational group represents population of SR:

- if there is two-years-duration (data file comprises of three rotational groups), so weights are divided by 3
- if there is three-years-duration (data file comprises of two rotational groups), so weights are divided by 2
- if there is four-years-duration (data file comprises of one rotational groups), so weights are divided by 1

Detailed description of weights calculation

Calculation of the household design weights DB080 was based on probability of sampling of households sharing of expenditures and correction of weights was carried out by response rate of questionnaires.

**DB090<sub>k0</sub>** in longitudinal component are calculated by calibration of cross-sectional **DB090<sub>k0</sub>** by using calibration variables: numbers of households sharing of expenditures by number of persons in regions.

**RB060** - for each person defined in data file, there was personal base weight in wave t=1 defined as:

$$\omega_1^{(RB)} = RB060 = RB050$$

In the next wave between 2008 and 2009 there were dropped out persons from basic file by reason of death, moving out of republic, moving from private household into collective household or by other reasons. On the next step we had to take into account persons, that fell out and they had influence on total non-response (it was impossible to find them).

For this reason arrangement of basic weights was adjusted by status of person and there were taken into account external estimations of numbers following events in SR:

- birth of children, if their mother is sample person, they obtained weight of their mother
- persons, that moved into selected household from other non-selected household - they were co-resident and RB060=0

**RB062** is weight for longitudinal file of two-years duration, involving annual data from the years 2008-2009 (rotational group 1, 2 and 3)

In condition of the Slovak Republic rotational groups have the same size - decrease is minimal, RB062 was calculated from RB060 divided **3** (arrangement of weights was realized on weights, which were representative for each rotational group for whole population of SR), or **4/3** (in the case, if initial weights are not calculated on whole population of SR during arrangements).

**RB063** is weight for longitudinal file of three-years duration, involving annual data from the years 2007, 2008 and 2009 (rotational group 1 and 2). RB063 was calculated from RB060 divided **2** (arrangement of weights was realized on weights, which were representative for each rotational group for whole population of SR), or

**4/2** ( In the case, if initial weights are not calculated on whole population of SR during arrangements).

**RB064** is weight for longitudinal file of four-years duration, involving annual data from the years 2006, 2007, 2008 and 2009 (rotational group 1). RB064 was calculated from RB060 divided **1** (arrangement of weights was realized on weights, which were representative for each rotational group for whole population of SR), or **4/1** (in the case, if initial weights are not calculated on whole population of SR during arrangements).

**PB050 = RB060**, however concerning only population aged 16 and over (16+).  
For rotational group 1 (years 2006, 2007, 2008 and 2009) sum of weights is equal of longitudinal population size of adults in the years 2006, 2007, 2008 and 2009.  
For rotational group 1 and 2 (years 2007, 2008 and 2009) sum of weights is equal of longitudinal population size of adults in the years 2007, 2008 and 2009.  
For rotational group 3 (year 2008 and 2009) sum of weights is equal of longitudinal population size of adults in the years 2008 and 2009.

#### 2.1.8.5 Non-response adjustments for longitudinal component

Non-response adjustments for longitudinal component was realized in relation to 5-th wave of the survey, i.e. year 2009 in following way:

- for rotational groups 1 and 2, 3 for the year 2009 we adjusted weights from previous year 2008 by number of persons, who moved in or moved out these households during year, which preceded actual year of the 2009 survey.

#### 2.1.8.6 Adjustments to external data (level, variables used and sources)

Weights of each rotational group (1 and 2, 3) in each wave (years 2006- 2009) were calibrated to total number of households in the Slovak Republic. Absolute numbers of households by number of household members in regions were calibration variables. (External information are accomplished estimate by expert in Demography area in Slovakia.)

#### 2.1.8.7 Final longitudinal weight

- see part 2.1.8.4

#### 2.1.8.8 Final household cross-sectional weight

Calculation of cross-sectional weights was realized in accordance with recommendation of Eurostat:

- calculation of the household design weights – target variable DB080 was based on probability of sampling of households sharing of expenditures,

- correction of weights was carried out by response rate of questionnaires
- weights of the households sharing of expenditures has been calibrated to external numbers of households by number of membership in administration regions, i.e. there were calculated initial household cross-sectional weights  $DB090_{k0}$ ,
- personal cross – sectional weights has been calibrated to external numbers of persons by age (5 yearly aged groups) and by sex in the administration regions i.e. calculation of the personal cross-sectional weights  $RB050_{ki0}$ ,
- integration of initial household and personal cross-sectional weights  $DB090_{k0}$  a  $RB050_{ki0}$  was made for each household k:
  - $DB090_k = RB050_{ki}$  , where k = number of household
  - i = member ordinal number of the household of k
  - $\sum_k \sum_i RB050_{ki} = \text{total Slovak population}$
- personal cross - sectional weights for all households members aged 16 and over,  $PB040$  has been calibrated to the same total as cross sectional weights for all households members, so:
  - $PB040=RB050$**
- cross - sectional weights for child care  $RL070$  has been calibrated to the same total as cross sectional weights for all households members, so:
  - $RL070=RB050$**

#### 2.1.9 Substitutions

N/A

## 2.2. Sampling errors

**Table 5. Mean, total number of observations (before and after imputation) and standard error for income components (households & persons, weighted mean) - cross-sectional component EU SILC 2009**

Income components	Mean	Number of observations		Standard error
		before imputation	after imputation	
HY010	13 551	5 226	5 260	131
HY020	11 598	4 984	5 261	106
HY022	10 883	4 992	5 247	105
HY023	8 607	4 928	5 183	116
Gross income components at household level				
HY030G	1 636	0	4 762	14
HY040G	774	204	210	129
HY050G	644	2 262	2 262	19
HY060G	1 374	192	208	91
HY070G	1 396	21	21	381
HY080G	1 007	294	300	52
HY081G	1 034	222	222	55
HY090G	169	555	555	30
HY100G	1 645	299	299	75
HY110G	603	13	13	343
HY120G	25	4 739	4 739	0
HY130G	810	170	174	87
Net income components at personal level				
PY010G	6 929	7 320	7 447	50
PY020G	382	5 190	5 190	4
PY021G	1 817	96	96	187
PY030G	2 327	0	7 256	15
PY035G	246	1 239	1 239	7
PY050G	8 387	748	748	292
PY070G	149	1 950	1 950	5
PY080G	358	48	48	50
PY090G	1 185	254	254	100
PY100G	3 730	3 078	3 149	25
PY110G	1 235	741	805	26
PY120G	707	293	338	38
PY130G	2 303	766	786	61
PY140G	1 389	92	92	167

**Table 6. Mean, total number of observations (before and after imputation) and standard error for income components (households & persons weighted mean) - longitudinal component - wave1 (2006)**

Income components	Mean	Number of observations		Standard error
		before imputation	after imputation	
HY010	7 770	1 157	1 307	157
HY020	6 673	1 154	1 307	124
HY022	6 242	1 183	1 294	125
HY023	5 035	1 152	1 217	137
<b>Gross income components at household level</b>				
HY040G	319	39	45	204
HY050G	460	567	567	23
HY060G	732	61	87	74
HY070G	5 896	2	2	5 126
HY080G	636	63	66	100
HY090G	64	20	36	30
HY100G	413	31	31	78
HY110G	52	1	1	-
HY120G	17	892	896	1
HY130G	419	35	35	65
<b>Net income components at personal level</b>				
PY010G	4 098	1 687	1 714	69
PY021G	1 986	0	30	371
PY035G	221	311	337	66
PY050G	4 327	151	151	351
PY070G	98	468	483	5
PY080G	435	11	11	95
PY090G	648	88	95	69
PY100G	2 338	759	780	45
PY110G	876	203	237	47
PY120G	311	62	71	47
PY130G	1 341	180	183	69
PY140G	332	25	25	35

**Table 7. Mean, total number of observations (before and after imputation) and standard error for income components (households & persons, weighted mean) - longitudinal component - wave2 (2007)**

Income components	Mean	Number of observations		Standard error
		before imputation	after imputation	
HY010	9 286	2 611	2 648	127
HY020	7 964	2 604	2 651	100
HY022	7 458	2 600	2 632	101
HY023	5 952	2 522	2 554	112
<b>Gross income components at household level</b>				
HY030G	980	0	2 390	16
HY040G	514	110	117	127
HY050G	507	1 150	1 150	18
HY060G	819	134	149	70
HY070G	40	6	7	18
HY080G	640	135	143	49
HY090G	161	200	200	51
HY100G	919	114	114	97
HY110G	156	9	9	55
HY120G	19	2 183	2 187	1
HY130G	511	81	89	66
<b>Net income components at personal level</b>				
PY010G	4 774	3 309	3 578	53
PY020G	316	2 365	2 564	9
PY021G	1 870	53	57	222
PY035G	1 605	0	3 423	15
PY050G	189	715	715	6
PY070G	6 139	338	338	359
PY080G	126	929	945	10
PY090G	258	17	19	51
PY100G	730	121	130	64
PY110G	2 624	1 535	1 567	28
PY120G	951	415	463	32
PY130G	445	130	146	63
PY140G	1 611	432	439	66

**Table 8. Mean, total number of observations (before and after imputation) and standard error for income components (households & persons, weighted mean) - longitudinal component - wave3 (2008)**

Income components	Mean	Number of observations		Standard error
		before imputation	after imputation	
HY010	11 249	4 091	4 091	124
HY020	9 562	4 092	4 092	97
HY022	8 968	4 074	4 074	97
HY023	7 167	4 005	4 005	108
<b>Gross income components at household level</b>				
HY030G	1 941	0	3 684	20
HY040G	442	170	176	57
HY050G	547	1 759	1 759	15
HY060G	1 270	139	161	93
HY070G	278	12	19	87
HY080G	964	209	216	77
HY081G	887	106	162	74
HY090G	115	384	384	15
HY100G	1 243	205	205	92
HY110G	93	12	12	26
HY120G	21	3 528	3 555	0
HY130G	671	118	121	77
<b>Net income components at personal level</b>				
PY010G	5 711	5 660	5 672	50
PY020G	318	4 150	4 264	3
PY021G	2 414	77	77	260
PY030G	1 963	0	5 445	14
PY035G	213	998	998	7
PY050G	6 953	558	560	299
PY070G	130	1 452	1 452	6
PY080G	580	27	27	211
PY090G	1 195	143	148	90
PY100G	3 082	2 455	2 455	21
PY110G	1 099	615	627	26
PY120G	541	219	219	44
PY130G	1 873	644	647	51
PY140G	871	87	87	88

**Table 9. Mean, total number of observations (before and after imputation) and standard error for income components (households & persons, weighted mean) - longitudinal component - wave4 (2009)**

Income components	Mean	Number of observations		Standard error
		before imputation	after imputation	
HY010	13 630	3 763	3 786	156
HY020	11 658	3 582	3 786	126
HY022	10 954	3 586	3 774	125
HY023	8 777	3 537	3 725	138
<b>Gross income components at household level</b>				
HY030G	1 625	0	3 459	16
HY040G	761	150	153	146
HY050G	638	1 594	1 594	23
HY060G	1 331	122	133	108
HY070G	1 007	17	17	237
HY080G	984	190	194	65
HY081G	1 041	139	139	72
HY090G	113	416	416	13
HY100G	1 782	187	187	104
HY110G	470	11	11	328
HY120G	24	3 414	3 414	1
HY130G	659	115	118	60
<b>Net income components at personal level</b>				
PY010G	6 884	5 304	5 405	59
PY020G	379	3 808	3 808	4
PY021G	1 840	65	65	205
PY030G	2 310	0	5 261	17
PY035G	244	920	920	6
PY050G	8 739	517	517	379
PY070G	153	1 379	1 379	7
PY080G	400	34	34	71
PY090G	1 184	180	180	142
PY100G	3 690	2 245	2 305	29
PY110G	1 228	558	606	29
PY120G	675	194	233	41
PY130G	2 313	558	576	75
PY140G	1 291	68	68	192

**Table 10. Mean, total number of observations (before and after imputation) and standard error for the equivalised disposable income cross-sectional component EU SILC 2009**

Equivalised disposable income	Mean	Number of observations		Standard error
		before imputation	after imputation	
<b>By household size</b>				
1 household member	5 055	1 010	1 064	107
2 household members	6 299	1 133	1 191	83
3 household members	6 766	954	1 000	97
4 and more household members	6 437	1 887	2 006	69
<b>By age groups</b>				
< 25	5 955	5 167	5 430	40
25 - 34	7 182	1 892	2 006	78
35 - 44	6 213	2 020	2 103	69
45 - 54	6 796	2 450	2 592	64
55 - 64	6 804	1 827	1 979	74
65 +	5 174	1 893	2 024	46
<b>By sex</b>				
Male	6 424	7 167	7 586	36
Female	6 165	8 082	8 548	33

**Table 11. Mean, total number of observations (before and after imputation) and standard error for the equivalised disposable income longitudinal component - wave1 (2006)**

Equivalised disposable income	Mean	Number of observations		Standard error
		before imputation	after imputation	
<b>By household size</b>				
1 household member	3 085	257	284	154
2 household members	3 799	264	295	113
3 household members	3 941	222	259	122
4 and more household members	3 601	411	469	83
<b>By age groups</b>				
< 25	3 400	1 144	1 330	47
25 - 34	3 920	355	409	94
35 - 44	3 553	494	567	80
45 - 54	4 071	525	595	102
55 - 64	3 960	418	478	86
65 +	3 145	414	461	69
<b>By sex</b>				
Male	3 674	1 568	1 806	48
Female	3 564	1 782	2 034	40

**Table 12. Mean, total number of observations (before and after imputation) and standard error for the equivalised disposable income longitudinal component - wave2 (2007)**

Equivalised disposable income	Mean	Number of observations		Standard error
		before imputation	after imputation	
<b>By household size</b>				
1 household member	3 578	537	546	116
2 household members	4 265	587	593	84
3 household members	4 820	497	511	103
4 and more household members	4 322	983	1 001	65
<b>By age groups</b>				
< 25	4 082	2 704	2 772	38
25 - 34	4 894	898	912	84
35 - 44	4 323	1 091	1 101	70
45 - 54	4 634	1 273	1 308	59
55 - 64	4 624	938	955	81
65 +	3 574	966	975	44
<b>By sex</b>				
Male	4 383	3 698	3 775	35
Female	4 220	4 172	4 248	33

**Table 13. Mean, total number of observations (before and after imputation) and standard error for the equivalised disposable income longitudinal component - wave3 (2008)**

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Equivalised disposable income	Mean	Number of observations		Standard error
		before imputation	after imputation	
<b>By household size</b>				
1 household member	4 234	860	860	120
2 household members	5 205	907	907	95
3 household members	5 632	798	798	92
4 and more household members	5 216	1 527	1 527	59
<b>By age groups</b>				
< 25	4 970	4 179	4 179	37
25 - 34	5 819	1 477	1 477	70
35 - 44	5 287	1 647	1 647	80
45 - 54	5 567	1 996	1 996	58
55 - 64	5 408	1 493	1 493	70
65 +	4 218	1 578	1 578	40
<b>By sex</b>				
Male	5 292	5 859	5 859	34
Female	5 056	6 511	6 511	31

**Table 14. Mean, total number of observations (before and after imputation) and standard error for the equivalised disposable income longitudinal component - wave4 (2009)**

Equivalised disposable income	Mean	Number of observations		Standard error
		before imputation	after imputation	
<b>By household size</b>				
1 household member	5 005	705	742	154
2 household members	6 074	801	841	95
3 household members	6 779	692	729	114
4 and more household members	6 310	1 384	1 474	81
<b>By age groups</b>				
< 25	5 908	3 664	3 854	48
25 - 34	6 958	1 384	1 475	87
35 - 44	6 182	1 446	1 501	88
45 - 54	6 775	1 764	1 875	77
55 - 64	6 681	1 342	1 464	86
65 +	5 047	1 457	1 548	57
<b>By sex</b>				
Male	6 320	5 233	5 560	42
Female	6 082	5 824	6 157	40

## 2.3. Non-sampling errors

### 2.3.1 Sampling frame and coverage errors

Initial data of sampling frame are data from 2001 Population and Housing Census. Changes in numbers of households sharing of expenditures are known only from expert estimates. We do not have any information for their identification to sampling.

Exact information about change in the fund of permanently occupied dwellings and houses exists and this information was used in sampling of households sharing of expenditures.

Information on status change in the fund of permanently occupied dwellings and houses from 2001 to 2004 and from 2004 to 2008 was used to update sampling frame for selection of households for new rotation group.

### 2.3.2 Measurement and processing errors

On the base of experience from EU SILC carried out in previous year there were several sources of errors, which could also occurred in EU SILC 2009 survey.

We focused on following sources of errors:

- the way of compiling the questionnaires, structure of questionnaires, ordering of questions in questionnaire, using of detailed structure of primary target variables,
- quality of interviewers´ training, individual skills of interviewer,
- interview in the case of households from previous wave or previous waves and contacted again in next year of the survey,
- searching of addresses of households or persons who moved to another residence compared to previous year of the survey,
- logical checks of questionnaires received from interviewers.

### 2.3.2.1 Measurement errors

Many sources, which occurred in the period of data collection, had influence on measurement errors:

- 1/ questionnaire
- 2/ interviewers
- 3/ respondents
- 4/ data collection

#### **1/ Questionnaires**

In compiling of individual questionnaires for EU SILC we resulted from until now proposed and applied questionnaires for the previous years (EU SILC 2005 - 2008), where there were used and taken into account concrete knowledge from survey fieldwork and also changes made in some variables in accordance with Doc.065 for 2009 operation.

The questions were grouped into particular modules in order to ensure better understanding, lucidity and simple orientation of interviewers in questionnaires.

Questions in compiling of questionnaires were proposed in a way to cover all required variables.

After marking up of national users the final version of four questionnaires for EU SILC 2006 and 2007 was created:

- SILC 1-01/A - Household structure
- SILC 1-01/B - Household sharing of expenditures data
- SILC 1-01/C - Personal data
- SILC 1-01/D - Social participation (EU SILC 2006)
- SILC 1-01/D - Housing conditions (EU SILC 2007)

EU SILC 2008 was the 1-st year which we used only 3 type of questionnaires, where modul 2008 on „Over-indebtedness and financial exclusion“ was the part of household questionnaire:

- SILC 1-01/A - Household structure
- SILC 1-01/B - Household sharing of expenditures data (including module 2008 and 2009)
- SILC 1-01/C - Personal data (including module 2009)

Modul 2009 on „Material deprivation” was the part of household questionnaire and personal questionnaire too.

Individual questionnaires were printed in different colours shades again, using them was helpful for interviewers during the fieldwork. Also usage of guidance symbols had contribution to better and faster orientation in questionnaires.

In EU SILC 2009 there were not made substantial changes in structure and individual modules of questions in questionnaires in comparison with questionnaires, which were used for EU SILC 2008. Compared to previous year of the survey we only took into account requirements and directions proposed in Doc 065 (2009 operation) and also changes related to legislative on national level.

In module **8. Income** there were remained income intervals related to gross annual earnings from main and secondary job, or gross profit/loss in the case if respondent did not know to give annual amount exactly or there was not available relevant document for giving this amount.

Elimination of rough estimation from the side of respondents as well as interviewers and also taking into account national requirements, were the main reasons for remaining income intervals.

Part **8.4 Tax on income** (questionnaire SILC 1-01/C - Personal data), which was created in EU SILC 2006 and used in EU SILC 2007 by reason of calculation of tax on income, where we collected information on components needed for decrease of tax assessment base, tax-bonus and repayments/receipts for tax adjustment, remained the same also for EU SILC 2009.

In questionnaire for EU SILC 2008 variables related to arrears on selected items we used those version of variables with adjusted response categories compared to previous year of survey (HH011 Arrears on mortgage or rent payments, HS021 Arrears on utility bills, HS031 Arrears on hire purchase instalments or other loan payments). These questions were collected within household questionnaire in the part, which was related to module 8. Financial situation of households.

Also in this survey (EU SILC 2009) there instruction for interviewer remained in questionnaire SILC 1-01/B, which in the case of households contacted again, with no changes in questions related to housing (number of rooms, total floor area, equipment of dwelling by bath, bath shower, indoor flushing toilet and year since which the household started living in dwelling), allowed jump to other questions in questionnaire. This missing data was recorded to these households from data on the base of EU SILC 2008. This adjustment has been certified in previous survey already, especially in a such way that burden on respondents in filling this information decreased.

On the base of co-operation with the Ministry of Labour, Social Affairs and Family of the SR, B questionnaires were again completed by some questions in module financial situation of households related to national aspects of poverty proposed by Ministry. Data will serve only for their internal purposes.

## **2/ Interviewers**

The external individually trained interviewers carried out the fieldwork. Mostly they were persons, who ensured interview in EU SILC 2008, possibly in previous years of the survey or persons who approved in previous national surveys realized in households (Population and Housing Census, Microcensus, etc.). Situation was more difficult, because communication with households became slightly worse compared to previous year. Much bigger problems occurred mostly in the case of households contacted again in this wave. Many households refused cooperation and they were afraid of taking advantage of data and distrust in terms of anonymity of the survey data. In most of cases it was necessary to repeat visit more times and to convince household to cooperate. Contact with households was easily made by interviewers in villages, because in most cases they have known each either with interviewer. Generally interviewers considered this survey to be difficult and time consuming.

Also in the year 2009, the organisation of the survey in individual regions was ensured by regional coordinators of SO SR. On each Regional Office there was coordinator – expert responsible for methodology who ensured personal contact (or contact by phone) with interviewers and solved occurred methodological unclearness on the base of consultation with experts from SO SR. Training of interviewers succeeded 2 days training of regional coordinators aimed at explanation of objectives, form, content of survey as well as methods and methodology. At the same time they were drew attention to mistakes occurred during centralized data processing. By reason of numbers of mistakes it was impossible to draw attention to mistakes to concrete interviewer, thus summary of mistakes by individual regions was made.

The Regional Offices of the SOSR in co-operation with the SOSR performed the training of interviewers with participation of experts. Nearly all trainings carried out one week before survey fieldwork and all methodological documents needed for fieldwork were available during this training.

For EU SILC 2006 there were trained 425 interviewers in total. Approximately 25-35 interviewers participated in one training and 12-15 households fell per one interviewer.

For EU SILC 2007 there were trained 435 interviewers, for EU SILC 2008 414 interviewers and for EU SILC 2009 395 interviewers. On the base of experience from previous surveys it was certified by Regional Offices to carry out separate training for new interviewers and separate for interviewers who realized interview in previous year. Apart from general methodological issues, this also allowed to deal with other specific problems in the survey according to needs a requirement of separated interviewers. Approximately 25-30 interviewers participated in one training and 12-15 households fell per one interviewer.

Several interviewers contributed by their opinions and experience to elaboration of detailed regional evaluation reports.

### **3/ Respondents**

As in previous years, interviewers gave promotion material - pen and leaflet to visiting households, in which there were presented selected indicators from former years of surveys with effort to motivate household to cooperate.

As in previous surveys, respondents had also problems to give amount of income variables - incomes from employment and from self-employment, taxes, employer's social insurance contribution and housing costs of households. Reaction of respondents was the same as in previous waves of the survey - if they did not know to mention the accurate amount, they were not willing to provide information from relevant documents (e.g. payrolls, statements of rental) from which the required values could have been obtained and by this reason in the majority of cases, they gave only approximate estimates. They had a problem with estimation of amount of goods produced by own consumption too.

The fact that respondents have been frightened before abuse of information for other than statistical purposes and due to distrust in terms of anonymity of the survey, this all permanently plays certain role. Households consider required information as private and by this reason certain data is not provided or if it was provided but only as estimated values.

Module 2009 - Material deprivation belonged, by expressions of respondents, to less complicated among those, which had been used within EU SILC surveys in previous years of the survey. In most households was not problem to obtain required information, rather existed problems with misunderstanding meaning of the word "deprivation". Variables like e.g. HD100 to HD140 evoked rather embarrassing reaction.

### **4/ Data collection**

Fieldwork within EU SILC was carried out in the first half of year. Choice of this period for realization of data collection in households has shown as convenient, especially concerning period for tax liability and liability for service of respondents (in terms of obtaining information on tax adjustment).

The EU SILC survey is a panel survey, in which longitudinal component – households included into survey and contacted again during consecutive waves - plays important role. Just in the case of these households, contacted again, was necessary to aim at data quality and comparability of collected information between individual waves of EU SILC, as well as to focus on obtaining data on households or persons, who moved out from their initial address from last wave of the survey.

"Manual for tracing of households" was worked out and was used as a guideline by Regional Offices of the SO SR.

System of searching of households or persons was based on the same principle as in previous year, i.e. if household or persons included into EU SILC 2007 survey changed address of their residence, data was recorded into registers created in common server of the SO SR, with limited access for each Regional Office. As

regards the fact that it was working with personal and confidential data, access to registers had only authorized persons.

Two registers existed:

- register A - it was intended as gathering station for all coordinators of individual Regional Offices and for SO SR. Data on whole households and persons who moved out from initial residence were recorded here, independently of the place of their new address (move out to another region, municipality).
- register B - into which coordinator of SO SR sent information after completing of needed data. There was recorded information on households/persons who moved in area of relevant Regional Office, and was completed by other data necessary for interviewers processing by coordinator of SO SR.

Interviewers were directed by “Manual for interviewer” in searching of moved out households/persons. They had forms SILC06 R\_D and SILC06 R\_O at disposal, which included information on basic identification data for all households and persons from the 2-nd wave, which had to be contacted again. All this basic data had to be filled in questionnaire SILC/A 1-01 by interviewer before interview of selected household.

In the case that household/person moved out from initial address, interviewer searched its new address and he told this change to relevant regional coordinator. Then coordinator of the Regional Office put the information for household through registers on server either directly to interviewer or through other coordinator of SO SR to other Regional Office.

Municipal offices (register of population), neighbours, postman or in the case of split-off households also original households, these all were evident help in searching of moved out households or persons.

#### 2.3.2.2 Processing errors

Data processing was realized on two levels:

1. The following actions has been realized on the decentralized level:
  - a) taking questionnaires from interviewers, formal checking, preparation of questionnaires for data recording,
  - b) data recording and data checking. The special software DCSILC2000 has been used for data recording, in which these types of controls were used: checks on the data integrity, identification of duplicity, frequency checks, checks to the permissible values, the logic checks within a questionnaire and between questionnaires, special conditions for data recording and non-responses. All the defined checks are included in the technical project for data processing EU SILC. The checks were divided into two types: informative checks and necessary checks. System of the checks also comprised of certain chosen checks from the checking software of Eurostat.

- c) on this level, also the errors caused by data recording have been eliminated. There were mainly errors created by a shift in editing codes yes/no/don't know and by not realizing a visual check sufficiently. By monitoring errors in the phase of data recording, the errors were analyzed and subsequently the situation was improved.
2. On the centralized level a final database was created. Logic controls, corrections, overweighting and imputations were realized using SW of system SAS.

### 2.3.3 Non-response errors

#### 2.3.3.1 Achieved sample size

**Table 15. Achieved sample size – household level**

	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009	Total
<b>DB135=1</b>	1 307	2 651	4 093	3 789	<b>11 840</b>

**Table 16. Achieved sample size - personal level**

RB250=11 to 13	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009	Total
<b>RB100=1</b>	3 248	6 784	10 543	9 773	<b>30 348</b>
<b>RB100=2</b>	0	19	19	177	<b>215</b>

#### 2.3.3.2 Unit non-response

**Table 17. Unit non-response - first wave (2006)**

EU SILC 2006	Total
DB120=11	1 519
DB120=all	1 519
DB120=23	0
<b>Ra</b>	<b>1.0000</b>
EU SILC 2006	Total
DB135=1	1 307
DB130= all	1 519
<b>Rh</b>	<b>0.8604</b>
<b>NRh</b>	<b>13.96</b>
RB250 = 11+12+13	3 248
RB245 = 1+2+3	3 250
<b>Rp</b>	<b>0.9994</b>
<b>NRp</b>	<b>0.0615</b>
<b>*NRp</b>	<b>14.01</b>

**Table 18. Household response rates: Comparison of results codes between wave 2 and wave 1**

**Sample outcome in wave 2 (2007)**

DB130=11												TOTAL
DB135=1	DB135=2	DB120=22	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	NC	DB110=10	DB130=23		

**Sample outcome in wave 1 (2006)**

DB130=11	DB135=1	1 239	0	2	7	0	39	13	1	6	0	0	<b>1 307</b>
	DB135=2	0	0	0	2	0	5	183	0	0	0	0	<b>190</b>
DB120=21													
DB120=22													
DB120=23													
DB130=21													
DB130=22													
DB130=23													
DB130=24													
<b>TOTAL</b>		<b>1 239</b>	<b>0</b>	<b>2</b>	<b>9</b>	<b>0</b>	<b>44</b>	<b>196</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>1 497</b>

**New households in wave 2 (2007)**

DB110=8	0	0	0	0	0	0	19	0	0	0	0	0	19
DB110=9	0	0	0	0	0	0	0	0	0	0	0	0	0

<b>TOTAL</b>	<b>1 239</b>	<b>0</b>	<b>2</b>	<b>9</b>	<b>0</b>	<b>44</b>	<b>215</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1 516</b>
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	A	B	C	D	E	F	G	H	I	J	K	T
<b>Wave response rate</b>		0.817										
<b>Refusal rate</b>		0.142										
<b>No-contacted and others</b>		0.041										
<b>Longitudinal follow-up rate</b>		0.860										
<b>Follow-up ratio</b>		0.860										
<b>Achieved sample size ratio</b>		0.948										

**Table 19. Household response rates: Comparison of results codes between wave 3 and wave 2**

**Sample outcome in wave 3 (2008)**

DB130=11											TOTAL
DB135=1	DB135=2	DB120=22	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	NC	DB110=10	DB130=23	

**Sample outcome in wave 2 (2007)**

DB130=11	DB135=1	2 601	2	0	0	31	8	9	0	0	0	31	<b>2 682</b>
	DB135=2	0	0	0	0	0	0	1	0	0	0	0	<b>1</b>
DB120=22	NH												
	No NH	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
DB130=22	NH												
	No NH	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
DB130=23	NH												
	No NH	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
DB130=24	NH												
	No NH	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
DB130=21													
DB120=21													
NC													
DB110=10													
DB130=23													
<b>TOTAL</b>		<b>2 601</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>8</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>2 683</b>

**New households in wave 3 (2008)**

DB110=8	11	0	0	0	0	0	0	0	0	0	0	11
DB110=9	0	0	0	0	0	0	0	0	0	0	0	0

<b>TOTAL</b>	<b>2 612</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>8</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>2 694</b>
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A B C D E F G H I J K T

<b>Wave response rate</b>	0.981
<b>Refusal rate</b>	0.004
<b>No-contacted and others</b>	0.004
<b>Longitudinal follow-up rate</b>	0.985
<b>Follow-up ratio</b>	0.989
<b>Achieved sample size ratio</b>	0.974

**Table 20. Household response rates: Comparison of results codes between wave 4 and wave 3**

**Sample outcome in wave 4 (2009)**

DB130=11											TOTAL
DB135=1	DB135=2	DB120=22	DB130=22	DB130=23	DB130=24	DB130=21	DB120=21	NC	DB110=10	DB130=23	

**Sample outcome in wave 3 (2008)**

DB130=11	DB135=1	3 767	0	0	31	34	29	146	0	86	0	34	<b>4 127</b>
	DB135=2	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
DB120=22	NH												
	No NH	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
DB130=22	NH												
	No NH	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
DB130=23	NH												
	No NH	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
DB130=24	NH												
	No NH	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
DB130=21													
DB120=21													
NC													
DB110=10													
DB130=23													
<b>TOTAL</b>		<b>3 767</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>34</b>	<b>29</b>	<b>146</b>	<b>0</b>	<b>86</b>	<b>0</b>	<b>34</b>	<b>4 127</b>

**New households in wave 4 (2009)**

DB110=8	21	0	0	0	0	0	0	0	0	0	0	21
DB110=9	0	0	0	0	0	0	0	0	0	0	0	0

<b>TOTAL</b>	<b>3 788</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>34</b>	<b>29</b>	<b>146</b>	<b>0</b>	<b>86</b>	<b>0</b>	<b>34</b>	<b>4 148</b>
	A	B	C	D	E	F	G	H	I	J	K	T

<b>Wave response rate</b>	0.921
<b>Refusal rate</b>	0.035
<b>No-contacted and others</b>	0.035
<b>Longitudinal follow-up rate</b>	0.936
<b>Follow-up ratio</b>	0.941
<b>Achieved sample size ratio</b>	0.918

**Table 21. Personal Interview outcome in wave 2 (2007)**

**Personal interview outcome in wave 2 (2007)**

RB250=11 to 13	Not completed because of									TOTAL
	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33	HH nc	Pn	PI	

**Sample persons (RB100=1 and RB245=1 to 3) from the sample forwarded from last wave (2005)**

RB110=1,2	3 086	0	0	0	1	0	0				<b>3 087</b>
RB110=6											
RB110=-1											
RB120=2											
RB120=3											
RB120=4											
DB135=2,-1 or DB110=7 or DB120=21 to 23 or DB120=-1 or DB130=21 to 24 or DB130=-1											
DB110=3 to 6											

**New sample persons**

Reached age 16	3 698	0	0	3	0	0	0	0	0	0	<b>3 701</b>
Sample additions	0	0	0	0	0	0	0				<b>0</b>

**Non-sample persons 16+**

This wave	From wave 1	0	0	0	0	0	0	0	0	0	<b>0</b>
	No in wave 1	19	0	0	0	0	0	0	0	0	<b>19</b>
Earlier wave	From wave 1										
	No in wave 1										

**Sample persons from sample not forwarded from last wave (2006)**

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<b>TOTAL1</b>	<b>6 784</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6 788</b>
<b>TOTAL2</b>	<b>6 784</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6 788</b>
<b>TOTAL2</b>	<b>6 803</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6 807</b>

A B C D E F G H J K T

<b>Wave response rate of sample persons</b>	0.999
<b>Wave response rate of co-residents</b>	0.000
<b>Longitudinal follow-up rate</b>	0.999
<b>R(RB250=21)</b>	0.000
<b>R(RB250=22)</b>	0.000
<b>R(RB250=23)</b>	0.000
<b>R(RB250=31)</b>	0.000
<b>R(RB250=32)</b>	0.000
<b>R(RB250=33)</b>	0.000

<b>Achieved sample size ratio for sample persons</b>	0.835
<b>Achieved sample size ratio for sample persons and co-residents</b>	0.835
<b>Achieved sample size ratio for co-residents in first wave</b>	0.000
<b>Response rate for non-sample persons</b>	0.000

**Table 22. Personal Interview outcome in wave 3 (2008)**

**Personal interview outcome in wave 3 (2008)**

RB250=11 to 13	Not completed because of									TOTAL
	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33	HH nc	Pn	PI	

**Sample persons (RB100=1 and RB245=1 to 3) from the sample forwarded from last wave (2007)**

RB110=1,2	6 658	0	0	56	0	0	1				<b>6 715</b>
RB110=6											
RB110=-1											
RB120=2											
RB120=3											
RB120=4											
DB135=2,-1 or DB110=7 or DB120=21 to 23 or DB120=-1 or DB130=21 to 24 or DB130=-1											
DB110=3 to 6											

**New sample persons**

Reached age 16	3 885	0	0	2	0	0	0	0	0	0	<b>3 887</b>
Sample additions	0	0	0	0	0	0	0				<b>0</b>

**Non-sample persons 16+**

This wave	From wave 1	0	0	0	0	0	0	0	0	0	<b>0</b>
	No in wave 1	19	0	0	0	0	0	0	0	0	<b>19</b>
Earlier wave	From wave 1										
	No in wave 1										

**Sample persons from sample not forwarded from last wave (2007)**

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<b>TOTAL1</b>	<b>10 543</b>	<b>0</b>	<b>0</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10 602</b>
<b>TOTAL2</b>	<b>10 543</b>	<b>0</b>	<b>0</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10 602</b>
<b>TOTAL2</b>	<b>10 562</b>	<b>0</b>	<b>0</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10 621</b>

A B C D E F G H J K T

<b>Wave response rate of sample persons</b>	0.994
<b>Wave response rate of co-residents</b>	0.000
<b>Longitudinal follow-up rate</b>	0.994
<b>R(RB250=21)</b>	0.000
<b>R(RB250=22)</b>	0.000
<b>R(RB250=23)</b>	0.005
<b>R(RB250=31)</b>	0.000
<b>R(RB250=32)</b>	0.000
<b>R(RB250=33)</b>	0.000

<b>Achieved sample size ratio for sample persons</b>	0.981
<b>Achieved sample size ratio for sample persons and co-residents</b>	0.981
<b>Achieved sample size ratio for co-residents in first wave</b>	0.000
<b>Response rate for non-sample persons</b>	0.000

**Table 23. Personal Interview outcome in wave 4 (2009)**

**Personal interview outcome in wave 4 (2009)**

RB250=11 to 13	Not completed because of									TOTAL
	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33	HH nc	Pn	PI	

**Sample persons (RB100=1 and RB245=1 to 3) from the sample forwarded from last wave (2008)**

RB110=1,2	9 728	0	0	2	0	0	0				<b>9 730</b>
RB110=6											
RB110=-1											
RB120=2											
RB120=3											
RB120=4											
DB135=2,-1 or DB110=7 or DB120=21 to 23 or DB120=-1 or DB130=21 to 24 or DB130=-1											
DB110=3 to 6											

**New sample persons**

Reached age 16	43	0	0	0	0	0	0	0	0	0	<b>43</b>
Sample additions	0	0	0	0	0	0	0				<b>0</b>

**Non-sample persons 16+**

This wave	From wave 1	44	1	0	0	0	0	0	0	0	<b>45</b>
	No in wave 1	133	0	0	1	0	0	0	0	0	<b>134</b>
Earlier wave	From wave 1										
	No in wave 1										

**Sample persons from sample not forwarded from last wave (2008)**

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<b>TOTAL1</b>	<b>9 771</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9 773</b>
<b>TOTAL2</b>	<b>9 771</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9 773</b>
<b>TOTAL2</b>	<b>9 948</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9 952</b>

A B C D E F G H J K T

<b>Wave response rate of sample persons</b>	1.000
<b>Wave response rate of co-residents</b>	0.000
<b>Longitudinal follow-up rate</b>	1.000
<b>R(RB250=21)</b>	0.000
<b>R(RB250=22)</b>	0.000
<b>R(RB250=23)</b>	0.000
<b>R(RB250=31)</b>	0.000
<b>R(RB250=32)</b>	0.000
<b>R(RB250=33)</b>	0.000

<b>Achieved sample size ratio for sample persons</b>	0.923
<b>Achieved sample size ratio for sample persons and co-residents</b>	0.923
<b>Achieved sample size ratio for co-residents in first wave</b>	0.000
<b>Response rate for non-sample persons</b>	0.000

2.3.3.3. Distribution of households by household status (DB110), by record of contact at address (DB120), by household questionnaire result (DB130) and by household interview acceptance (DB135)

**Table 24. Distribution of households by household status (DB110)**

DB110		Total	1	2	3	4	5	6	7	8	9	10
EU SILC 2006	Total	1 519	0	0	0	0	0	0	0	0	1 519	0
	%	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
EU SILC 2007	Total	2 943	1 473	18	1	0	3	0	2	19	1 427	0
	%	100.0	50.1	0.6	0.0	0.0	0.1	0.0	0.1	0.6	48.5	0.0
EU SILC 2008	Total	4 166	2 630	22	0	0	0	0	0	11	1 503	0
	%	100.0	63.1	0.5	0.0	0.0	0.0	0.0	0.0	0.3	36.1	0.0
EU SILC 2009	Total	4 115	3 982	26	0	0	0	0	86	21	0	0
	%	100.0	96.8	0.6	0.0	0.0	0.0	0.0	2.1	0.5	0.0	0.0

**Table 25. Distribution of households by contact at address (DB120)**

DB120		Total	11	21	22	23	Missing
EU SILC 2007	Total (DB110=2,8,10)	37	34	1	2	0	0
	%	100.0	91.9	2.7	5.4	0.0	0.0
EU SILC 2008	Total (DB110=2,8,10)	33	33	0	0	0	0
	%	100.0	100.0	0.0	0.0	0.0	0.0
EU SILC 2009	Total (DB110=2,8,10)	47	47	0	0	0	0
	%	100.0	100.0	0.0	0.0	0.0	0.0

**Table 26. Distribution of households by household questionnaire result (DB130)**

DB130		Total	11	21	22	23	24	Missing
EU SILC 2006	Total (DB120=11 or DB110=1)	1 519	1 519	0	0	0	0	0
	%	100.0	100.0	0.0	0.0	0.0	0.0	0.0
EU SILC 2007	Total (DB120=11 or DB110=1)	2 934	2 652	217	15	0	50	0
	%	100.0	90.4	7.4	0.5	0.0	1.7	0.0
EU SILC 2008	Total (DB120=11 or DB110=1)	4 158	4 095	10	8	37	8	0
	%	100.0	98.5	0.2	0.2	0.9	0.2	0.0
EU SILC 2009	Total (DB120=11 or DB110=1)	4 029	3 789	146	31	34	29	0

	%	100.0	94.0	3.6	0.8	0.8	0.7	0.0
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**Table 27. Distribution of households by household interview acceptance (DB135)**

DB135		Total	1	2	Missing
EU SILC 2006	Total (DB130=11)	1 519	1 307	212	0
	%	100.0	86.0	14.0	0.0
EU SILC 2007	Total (DB130=11)	2 652	2 651	1	0
	%	100.0	100.0	0.0	0.0
EU SILC 2008	Total (DB130=11)	4 095	4 093	2	0
	%	100.0	100.0	0.0	0.0
EU SILC 2009	Total (DB130=11)	3 789	3 789	0	0
	%	100.0	100.0	0.0	0.0

2.3.3.4 Distribution of persons for membership status (RB110)

**Table 28. Distribution of persons for membership status (RB110)**

RB110		Total	Current household members				No current households members			Missing
			RB110=1	RB110=2	RB110=3	RB110=4	RB120=2 to 4	RB110=6	RB110=7	
EU SILC 2007	Total	8 023	7 932	1	19	11	43	17	0	0
	%	100.0	98.9	0.0	0.2	0.1	0.5	0.2	0.0	0.0
EU SILC 2008	Total	12 373	12 292	0	7	0	50	24	0	0
	%	100.0	99.3	0.0	0.1	0.0	0.4	0.2	0.0	0.0
EU SILC 2009	Total	11 720	11 205	37	139	136	124	79	0	0
	%	100.0	95.6	0.3	1.2	1.2	1.1	0.7	0.0	0.0

**Table 29. Distribution of persons moving out by variable RB120**

RB120		Total	RB110=5				
			RB120=1		RB120=2	RB120=3	RB120=4
			This person is a current household member of a household this wave	This person is not a current household member			
EU SILC 2007	Total	43	26	4	0	11	2
	%	100.0	60	9	0.0	25.6	4.7
EU SILC 2008	Total	50	13	16	1	14	6
	%	100.0	26	32	2.0	28.0	12.0
EU SILC 2009	Total	124	30	39	3	34	18
	%	100.0	24	31	2.4	27.4	14.5

### 2.3.3.5 *Item non-response*

**Table 30. Item non-response for longitudinal component - wave1 (2006)**

Income components	Income ne 0		All of information (IF=1)		All of imputation (IF=0)		Partial imputation	
	count	%	count	%	count	%	count	%
HY010	1 307	100.0	1 157	88.5	4	0.3	146	11.2
HY020	1 307	100.0	1 154	88.3	1	0.1	152	11.6
HY022	1 294	99.0	1 183	91.4	0	0.0	111	8.6
HY023	1 217	93.1	1 152	94.7	0	0.0	65	5.3
<b>Gross income components at household level</b>								
HY040G	45	3.4	39	86.7	6	13.3	0	0.0
HY050G	567	43.4	567	100.0	0	0.0	0	0.0
HY060G	87	6.7	61	70.1	17	19.5	9	10.3
HY070G	2	0.2	2	100.0	0	0.0	0	0.0
HY080G	66	5.0	63	95.5	3	4.5	0	0.0
HY090G	36	2.8	20	55.6	16	44.4	0	0.0
HY100G	31	2.4	31	100.0	0	0.0	0	0.0
HY110G	1	0.1	1	100.0	0	0.0	0	0.0
HY120G	896	68.6	892	99.6	4	0.4	0	0.0
HY130G	35	2.7	35	100.0	0	0.0	0	0.0
HY140G	955	73.1	934	97.8	4	0.4	17	1.8
<b>Net income components at personal level</b>								
PY010G	1 714	100.0	1 687	98.4	17	1.0	10	0.6
PY021G	30	1.8	0	0.0	30	100.0	0	0.0
PY035G	337	19.7	311	92.3	26	7.7	0	0.0
PY050G	151	8.8	151	100.0	0	0.0	0	0.0
PY070G	483	28.2	468	96.9	15	3.1	0	0.0
PY080G	11	0.6	11	100.0	0	0.0	0	0.0
PY090G	95	5.5	88	92.6	7	7.4	0	0.0
PY100G	780	45.5	759	97.3	14	1.8	7	0.9
PY110G	237	13.8	203	85.7	34	14.3	0	0.0
PY120G	71	4.1	62	87.3	9	12.7	0	0.0
PY130G	183	10.7	180	98.4	3	1.6	0	0.0
PY140G	25	1.5	25	100.0	0	0.0	0	0.0

**Table 31. Item non-response for longitudinal component - wave2 (2007)**

Income components	Income ne 0		All of information (IF=1)		All of imputation (IF=0)		Partial imputation	
	count	%	count	%	count	%	count	%
HY010	2 648	100.0	2 611	98.6	21	0.8	16	0.6
HY020	2 651	100.1	2 604	98.2	20	0.8	27	1.0
HY022	2 632	99.4	2 600	98.8	10	0.4	22	0.8
HY023	2 554	96.5	2 522	98.7	10	0.4	22	0.9
<b>Gross income components at household level</b>								
HY030G	2 390	90.3	0	0.0	2 390	100.0	0	0.0
HY040G	117	4.4	110	94.0	7	6.0	0	0.0
HY050G	1 150	43.4	1 150	100.0	0	0.0	0	0.0
HY060G	149	5.6	134	89.9	14	9.4	1	0.7
HY070G	7	0.3	6	85.7	1	14.3	0	0.0
HY080G	143	5.4	135	94.4	7	4.9	1	0.7
HY090G	200	7.6	200	100.0	0	0.0	0	0.0
HY100G	114	4.3	114	100.0	0	0.0	0	0.0
HY110G	9	0.3	9	100.0	0	0.0	0	0.0
HY120G	2 187	82.6	2 183	99.8	4	0.2	0	0.0
HY130G	89	3.4	81	91.0	8	9.0	0	0.0
HY140G	1 987	75.0	1 982	99.7	4	0.2	1	0.1
<b>Net income components at personal level</b>								
PY010G	3 578	100.0	3 309	92.5	124	3.5	145	4.1
PY020G	2 564	71.7	2 365	92.2	199	7.8	0	0.0
PY021G	57	1.6	53	93.0	4	7.0	0	0.0
PY030G	3 423	95.7	0	0.0	3 423	100.0	0	0.0
PY035G	715	20.0	715	100.0	0	0.0	0	0.0
PY050G	338	9.4	338	100.0	0	0.0	0	0.0
PY070G	945	26.4	929	98.3	16	1.7	0	0.0
PY080G	19	0.5	17	89.5	2	10.5	0	0.0
PY090G	130	3.6	121	93.1	9	6.9	0	0.0
PY100G	1 567	43.8	1 535	98.0	26	1.7	6	0.4
PY110G	463	12.9	415	89.6	46	9.9	2	0.4
PY120G	146	4.1	130	89.0	16	11.0	0	0.0
PY130G	439	12.3	432	98.4	6	1.4	1	0.2
PY140G	51	1.4	51	100.0	0	0.0	0	0.0

**Table 32. Item non-response for longitudinal component - wave3 (2008)**

Income components	Income ne 0		All of information (IF=1)		All of imputation (IF=0)		Partial imputation	
	count	%	count	%	count	%	count	%
HY010	4 091	100.0	4 091	100.0	0	0.0	0	0.0
HY020	4 092	100.0	4 092	100.0	0	0.0	0	0.0
HY022	4 074	99.6	4 074	100.0	0	0.0	0	0.0
HY023	4 005	97.9	4 005	100.0	0	0.0	0	0.0
<b>Gross income components at household level</b>								
HY030G	3 684	90.1	0	0.0	3 684	100.0	0	0.0
HY040G	176	4.3	170	96.6	6	3.4	0	0.0
HY050G	1 759	43.0	1 759	100.0	0	0.0	0	0.0
HY060G	161	3.9	139	86.3	17	10.6	5	3.1
HY070G	19	0.5	12	63.2	5	26.3	2	10.5
HY080G	216	5.3	209	96.8	3	1.4	4	1.9
HY081G	162	4.0	106	65.4	0	0.0	56	34.6
HY090G	384	9.4	384	100.0	0	0.0	0	0.0
HY100G	205	5.0	205	100.0	0	0.0	0	0.0
HY110G	12	0.3	12	100.0	0	0.0	0	0.0
HY120G	3 555	86.9	3 528	99.2	16	0.5	11	0.3
HY130G	121	3.0	118	97.5	3	2.5	0	0.0
HY131G	61	1.5	61	100.0	0	0.0	0	0.0
HY140G	3 109	76.0	3 104	99.8	4	0.1	1	0.0
<b>Net income components at personal level</b>								
PY010G	5 672	100.0	5 660	99.8	0	0.0	12	0.2
PY020G	4 264	75.2	4 150	97.3	114	2.7	0	0.0
PY021G	77	1.4	77	100.0	0	0.0	0	0.0
PY030G	5 445	96.0	0	0.0	5 445	100.0	0	0.0
PY035G	998	17.6	998	100.0	0	0.0	0	0.0
PY050G	560	9.9	558	99.6	0	0.0	2	0.4
PY070G	1 452	25.6	1 452	100.0	0	0.0	0	0.0
PY080G	27	0.5	27	100.0	0	0.0	0	0.0
PY090G	148	2.6	143	96.6	0	0.0	5	3.4
PY100G	2 455	43.3	2 455	100.0	0	0.0	0	0.0
PY110G	627	11.1	615	98.1	0	0.0	12	1.9
PY120G	219	3.9	219	100.0	0	0.0	0	0.0
PY130G	647	11.4	644	99.5	0	0.0	3	0.5
PY140G	87	1.5	87	100.0	0	0.0	0	0.0

**Table 33. Item non-response for longitudinal component - wave4 (2009)**

Income components	Income ne 0		All of information (IF=1)		All of imputation (IF=0)		Partial imputation	
	count	%	count	%	count	%	count	%
HY010	3 786	100.0	3 763	99.4	1	0.0	22	0.6
HY020	3 786	100.0	3 582	94.6	0	0.0	204	5.4
HY022	3 774	99.7	3 586	95.0	1	0.0	187	5.0
HY023	3 725	98.4	3 537	95.0	7	0.2	181	4.9
<b>Gross income components at household level</b>								
HY030G	3 459	91.4	0	0.0	3 457	99.9	2	0.1
HY040G	153	4.0	150	98.0	3	2.0	0	0.0
HY050G	1 594	42.1	1 594	100.0	0	0.0	0	0.0
HY060G	133	3.5	122	91.7	11	8.3	0	0.0
HY070G	17	0.4	17	100.0	0	0.0	0	0.0
HY080G	194	5.1	190	97.9	3	1.5	1	0.5
HY081G	139	3.7	139	100.0	0	0.0	0	0.0
HY090G	416	11.0	416	100.0	0	0.0	0	0.0
HY100G	187	4.9	187	100.0	0	0.0	0	0.0
HY110G	11	0.3	11	100.0	0	0.0	0	0.0
HY120G	3 414	90.2	3 414	100.0	0	0.0	0	0.0
HY130G	118	3.1	115	97.5	3	2.5	0	0.0
HY131G	52	1.4	51	98.1	1	1.9	0	0.0
HY140G	2 904	76.7	2 904	100.0	0	0.0	0	0.0
<b>Net income components at personal level</b>								
PY010G	5 405	100.0	5 304	98.1	66	1.2	35	0.6
PY020G	3 808	70.5	3 808	100.0	0	0.0	0	0.0
PY021G	65	1.2	65	100.0	0	0.0	0	0.0
PY030G	5 261	97.3	0	0.0	5 261	100.0	0	0.0
PY035G	920	17.0	920	100.0	0	0.0	0	0.0
PY050G	517	9.6	517	100.0	0	0.0	0	0.0
PY070G	1 379	25.5	1 379	100.0	0	0.0	0	0.0
PY080G	34	0.6	34	100.0	0	0.0	0	0.0
PY090G	180	3.3	180	100.0	0	0.0	0	0.0
PY100G	2 305	42.6	2 245	97.4	37	1.6	21	0.9
PY110G	606	11.2	558	92.1	44	7.3	4	0.7
PY120G	233	4.3	194	83.3	38	16.3	0	0.0
PY130G	576	10.7	558	96.9	10	1.7	8	1.4
PY140G	68	1.3	68	100.0	0	0.0	0	0.0

## 2.4. Mode of data collection

**Table 34. Distribution of household members by RB250**

		Total	RB250=11	RB250=21	RB250=22	RB250=23	RB250=31	RB250=32	RB250=33
<b>household members 16+ (RB245=1 to 3)</b>									
EU SILC 2006	Total	3 250	3 248	0	0	0	0	0	2
	%	100.0	99.9	0.0	0.0	0.0	0.0	0.0	0.1
EU SILC 2007	Total	6 807	6 803	0	0	3	1	0	0
	%	100.0	99.9	0.0	0.0	0.0	0.0	0.0	0.0
EU SILC 2008	Total	10 623	10 562	0	0	60	0	0	1
	%	100.0	99.4	0.0	0.0	0.6	0.0	0.0	0.0
EU SILC 2009	Total	9 954	9 950	1	3	0	0	0	0
	%	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>sample persons 16+ (RB245=1 to 3 and RB100=1)</b>									
EU SILC 2006	Total	3 250	3 248	0	0	0	0	0	2
	%	100.0	99.9	0.0	0.0	0.0	0.0	0.0	0.1
EU SILC 2007	Total	6 788	6 784	0	0	3	1	0	0
	%	100.0	99.9	0.0	0.0	0.0	0.0	0.0	0.0
EU SILC 2008	Total	10 604	10 543	0	0	60	0	0	1
	%	100.0	99.4	0.0	0.0	0.6	0.0	0.0	0.0
EU SILC 2009	Total	9 775	9 773	0	0	2	0	0	0
	%	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>co-residents 16+ (RB245=1 to 3 and RB100=2)</b>									
EU SILC 2006	Total	0	0	0	0	0	0	0	0
	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EU SILC 2007	Total	19	19	0	0	0	0	0	0
	%	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
EU SILC 2008	Total	19	19	0	0	0	0	0	0
	%	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
EU SILC 2009	Total	179	177	1	0	1	0	0	0
	%	100.0	98.9	0.6	0.0	0.6	0.0	0.0	0.0

**Table 35. Distribution of household members by RB260**

		Total	RB260=1	RB260=2	RB260=3	RB260=4	RB260=5	Missing
<b>household members 16+ (RB245=1 to 3) and (RB250=11 or 13)</b>								
<b>EU SILC 2006</b>	<b>Total</b>	<b>3 248</b>	3 043	0	0	12	193	0
	<b>%</b>	<b>100.0</b>	93.7	0.0	0.0	0.4	5.9	0.0
<b>EU SILC 2007</b>	<b>Total</b>	<b>6 803</b>	6 302	0	0	39	462	0
	<b>%</b>	<b>100.0</b>	92.6	0.0	0.0	0.6	6.8	0.0
<b>EU SILC 2008</b>	<b>Total</b>	<b>10 562</b>	10 047	0	0	46	469	0
	<b>%</b>	<b>100.0</b>	95.1	0.0	0.0	0.4	4.4	0.0
<b>EU SILC 2009</b>	<b>Total</b>	<b>9 950</b>	9 443	0	0	32	475	0
	<b>%</b>	<b>100.0</b>	94.9	0.0	0.0	0.3	4.8	0.0
<b>sample persons 16+ (RB245=1 to 3 and RB100=1) and (RB250=11 or 13)</b>								
<b>EU SILC 2006</b>	<b>Total</b>	<b>3 248</b>	3 043	0	0	12	193	0
	<b>%</b>	<b>100.0</b>	93.7	0.0	0.0	0.4	5.9	0.0
<b>EU SILC 2007</b>	<b>Total</b>	<b>6 784</b>	6 286	0	0	39	459	0
	<b>%</b>	<b>100.0</b>	92.7	0.0	0.0	0.6	6.8	0.0
<b>EU SILC 2008</b>	<b>Total</b>	<b>10 543</b>	10 031	0	0	46	466	0
	<b>%</b>	<b>100.0</b>	95.1	0.0	0.0	0.4	4.4	0.0
<b>EU SILC 2009</b>	<b>Total</b>	<b>9 773</b>	9 285	0	0	32	456	0
	<b>%</b>	<b>100.0</b>	95.0	0.0	0.0	0.3	4.7	0.0
<b>co-residents 16+ (RB245=1 to 3 and RB100=2) and (RB250=11 or 13)</b>								
<b>EU SILC 2006</b>	<b>Total</b>	<b>0</b>	0	0	0	0	0	0
	<b>%</b>	<b>0.0</b>	0.0	0.0	0.0	0.0	0.0	0.0
<b>EU SILC 2007</b>	<b>Total</b>	<b>19</b>	16	0	0	0	3	0
	<b>%</b>	<b>100.0</b>	84.2	0.0	0.0	0.0	15.8	0.0
<b>EU SILC 2008</b>	<b>Total</b>	<b>19</b>	16	0	0	0	3	0
	<b>%</b>	<b>100.0</b>	84.2	0.0	0.0	0.0	15.8	0.0
<b>EU SILC 2009</b>	<b>Total</b>	<b>177</b>	158	0	0	0	19	0
	<b>%</b>	<b>100.0</b>	89.3	0.0	0.0	0.0	10.7	0.0

## 2.5. Imputation procedure

From many methods (deductive, deterministic, stochastic), which were recommended for imputation of income variables, we used method of regression deterministic imputation.

Imputation procedure, which was used for solution of item non-response was following:

For imputation of income variables in household data file there were created following groups:

Region (NUTS 3)

HH030 (number of rooms)

POCL (number of households members)

For imputation of income variables in personal data file there were created following groups:

Region (NUTS)

Age

Sex

In this way created groups gave us the most differentiated average values. Imputation was implemented in three steps:

In case of imputation for income variables of the H-file :

1. Region x HH030 x POCL
2. Region x POCL
3. Region

In case of imputation for income variables of the P-file :

1. DB050 x Age x PB150
2. DB050
3. Region

Imputation was carry out in connection with housing cost too (variable HH060 *Current rent related to occupied dwelling*).

Data was imputed on the base of group averages according to following criteria: region, number of rooms in dwelling and tenure status.

## 2.6 Imputed rent

This variable is compulsory since EU SILC 2007.

For EU SILC 2005 and 2006 calculation of income variable was realized only in order to test and ensure coherence on national level. Item HY030G is recorded only at component level and in longitudinal databases L2009 it is not included into

variable HY010 for all years 2006 to 2009.

In calculation of imputed rent we resulted from elaborated study „Testing of Methods of Imputed Rent Estimation for EU-SILC in the Slovak Republic”.

Results of researches, but also Population and Housing Census 2001 show that the share of the privately-owned dwellings and houses rented at the market price represents about 3 % of the total number of dwellings in the Slovak Republic.

By this reason there was used user-cost method for estimation of imputed rent in the Slovak conditions. In estimation of imputed rent by user-cost method there was computed net operating surplus from the imputed rent, which is estimated from the average net stock of the value of dwellings.

In estimating the net stock of the value of dwellings, we used following approach:

1. The quantitative data on owner-occupied dwellings stratified by region, location (rural/urban area), dwelling type (own house/own dwelling), age (individual categories of age), and dwelling size (dwelling with one room, two rooms, ...five rooms) are drawn.

Quantitative data was corrected on the basis of actual quantitative data from 2001 Census (data from Census 2001 - numbers of privately-owned houses and dwellings are updated according to the statistics of finished houses and dwellings)

2. To these data there were found out prices of dwelling/houses from administrative sources and there was determined price of dwelling/houses. Net operating surplus was determined through applying relevant percentage (2,5 %), which was used from data of National Accounts.

## **2.7 Company cars**

Benefit from using company car for personal purposes was estimated on the basis of depreciated price of company car for actual year and other cash benefits, which were provided by employer in connection with car for personal purposes – benefit paid for petrol, benefit related to compulsory car insurance and repair and maintenance benefits. As input components for estimation of depreciated price of car for the actual year was market price of new car, period of amortisation established by law (4 years) and age of car (on the basis of year of production). Market price of car for relevant year was updated according to available external sources.

$\frac{1}{4}$  of price of new car is depreciated from price of new car every year. Theoretically depreciated price of 5-year car would equal 0. Practically older cars are used too and their actual depreciated price does not equal 0. Depreciated price of cars older than 4 years was calculated in such a way that  $\frac{1}{4}$  of price of new car was divided by age of car overlapping 3 years (because for the period of 4 years, there is assigned  $\frac{1}{4}$  of the price).

Total benefit from using company car represents the sum of estimated depreciated price of company car, benefit paid for petrol, benefit related to compulsory car insurance and repair and maintenance benefits.

In comparison of data from EU SILC 2006 more considerable differences in values within variable PY021G occurred, because more rigorous amortization in individual types of cars was taken into account.

In EU SILC 2007, 2008 and 2009 there was used the same rigorous method for amortization of individual types of cars as in EU SILC 2006, so the differences within variable PY021G between EU SILC 2006 and 2007 were eliminated in large extent.

### **3 COMPARABILITY**

#### **3.1 Basic concepts and definitions**

##### **The reference population**

For EU SILC 2006, 2007, 2008 and 2009 the *reference population* was defined in accordance with document EU SILC 065 for relevant year of the survey.

##### **The private household definition**

For EU SILC 2006, 2007, 2008 and 2009 there was used the same definition of *private household* in accordance with document EU SILC 065 for relevant year of the survey.

As the basic survey unit is considered private household sharing of expenditures comprised of persons in dwelling who live and manage together, including sharing in ensuring of the living needs. As manage together is considered: joint share in covering the basic household costs (catering, housing cost, costs of electricity, gas, etc).

In one dwelling there can be situated one or more households sharing of expenditures. Dwelling household is created by all persons living in dwelling.

##### **The household membership**

For EU SILC 2006, 2007, 2008 and 2009 the household membership was defined in accordance with document EU SILC 065 for relevant year of the survey.

As household member was considered:

- a) usually resident - present in household,
- b) usually resident - absent for a short term, e.g. by reason of employment, education, vacation and etc.,
- c) usually resident - absent for a long term by reason of employment, children absent for a long term by reason of education (education abroad),
- d) usually resident - absent for a long term by reason of hospitalization in hospital, stay at school, boarding school and other institution. if his/her actual or intended duration of absence is more than three months,
- e) lodger, tenant, stranger, if his/her actual or intended duration of stay in household is six or more months,

- f) visitor - guest if his/her actual or intended duration of stay in household is six or more months.

Each person who is considered as household member is person sharing in joint expenditures of this household. If there is person within dwelling household, who does not share in expenditures together with other persons living in one and the same dwelling, is considered as separate household sharing of own expenditures. Persons living in one dwelling can create one or more households sharing of expenditures.

Lodger, if it is one or more persons who manage together, creates/create separate household sharing of expenditures.

Residents, usually residents but temporarily absent by reason of business trip, education and etc., lodgers, tenants, they are household members if actually do not have private address elsewhere and they meet conditions related to their stay in household on the base of the document EU SILC 065 for relevant year of the survey.

Servant (including au-pairs) is not considered as household member in national conditions.

In the case of visitor (guest) as household member we consider person sharing in joint expenditures of household, if his/her actual or intended duration of stay in household is six months and more, although he/she has other private address elsewhere.

#### **The income reference period(s) used**

- calendar year 2005 (EU SILC 2006),
- calendar year 2006 (EU SILC 2007),
- calendar year 2007 (EU SILC 2008),
- calendar year 2008 (EU SILC 2009).

#### **The period for tax on income and social insurance contributions**

The period for taxes on income and social insurance contributions is calendar year, which precedes the year, in which was realized personal interviewer – for EU SILC 2006 calendar year 2005, for EU SILC 2007 calendar year 2006, for EU SILC 2008 calendar year 2007 and for EU SILC 2009 calendar year 2008.

The tax liability and liability for service for the relevant calendar year was performed at the beginning of the calendar year (to 31-st March of relevant year) succeeding to year, for which the tax liability and liability for service is related to.

The tax liability and liability for service for the year 2005 was performed in the year 2006 (EU SILC 2006), for the calendar year 2006 in the year 2007 (EU SILC 2007), for calendar year 2007 in the year 2008 (EU SILC 2008) and for calendar year 2008 in the year 2009 (EU SILC 2009).

Concerning the period of data collection within fieldwork (May – June 2005 and April 2006, 2007, 2008 and 2009) the tax adjustment was taken into account in surveys EU SILC.

#### **The reference period for taxes on wealth**

- the same as in the case of tax on income and social insurance contributions.

### **The lag between the income reference period and current variables**

The Statistics on income and living conditions EU SILC 2006, 2007, 2008 and 2009 was carried out in April (from 3-rd April to 28-th April 2006, from 2-nd April to 30-th April 2007 and from the 1-st April to 30-th April 2008 and also 2009), the lag represented 4 months.

### **The total duration of the data collection of the sample**

Total duration of data collection in the case of surveys EU SILC 2006, 2007, 2008 and 2009 represented the period of 4 weeks.

### **Basic information on activity status during the income reference period**

Variable PL060 was for EU SILC 2006, 2007, 2008 and 2009 defined in accordance with document EU SILC 065 for relevant year of the survey.

Variable **PL060** was collected in questionnaire on personal level and included in module related to basic labour information. This module was within EU SILC 2006 moved behind questions related to health, information on activity status and history and calendar of activities. Also it was expressly distinguished to questions related to current and last main employment.

#### **Variable PL060 Number of hours usually worked per week in main job:**

Question related to variable PL060 was placed in questionnaire in a such a way to meet conditions in document EU SILC 065 for relevant year of the survey (related to variables PL030/PL031 and PL035). Concerning condition to variable PL035, which was valid only by the 2009 operation, this variable was recorded only on national level. On EU level the variable was recorded as PL035\_F = -2). Persons, who had only occasional job on the base of work performance agreement or agreement on temporary job of students and they did not have any employment, which could have been considered as the main job, they did not answer the question related to PL060. In the case if respondent did not know exactly number of hours worked in the main job per week, he/she gave weekly average number of hours worked during the last previous 4 weeks.

## **3.2 Components of income**

### **3.2.1 Differences between the national definitions and standard EU-SILC definitions, and an assessment, if available, of the consequences of the differences mentioned will be reported for the following target variables**

#### **HY010 – Total household gross income**

Definition of total household income HY010 was treated in accordance with harmonized methodology – Doc. EU SILC 065 for relevant year of the survey. In calculation of variable HY010 for all years of EU SILC 2006 – 2009 there was taken into account only income variable – Company car (PY021G) of all non-cash employee income.

Other variables compulsory from 2007 were recorded only at individual level of these income variables and were not be included in variable HY010: Other non-cash employee income with the exception of company car (PY020G), Employer's social insurance contribution (PY030G), Value of goods produced by own consumption (PY070G), Imputed rent (HY030G) and Interest payments on mortgage (HY100G). Variable Pension from individual private plans (PY080G) is taken into account in HY010 within longitudinal databases L2009 only for the year 2007.

#### **HY020 – Total disposable household income**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey. Variable Pension from individual private plans (PY080G) is taken into account in HY020 within longitudinal databases L2009 only for the year 2007.

#### **HY022 – Total disposable household income, before social transfers other than old-age and survivors' benefits**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey. Variable Pension from individual private plans (PY080G) is taken into account in HY022 within longitudinal databases L2009 only for the year 2007.

#### **HY023 – Total disposable household income, before social transfers including old-age and survivors' benefits**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey. Variable Pension from individual private plans (PY080G) is taken into account in HY023 within longitudinal databases L2009 only for the year 2007.

#### **HY025 – Within-household non-response inflation factor**

HY025 is value through which it is possible to estimate income of that person in household aged 16 and over, who did not provide information on income.

Calculation of variable HY025 was within EU SILC 2006 - 2009 based on assumption that incomes of non-respondents aged 16 and over in relevant household have the level comparable with incomes of other persons aged 16 and over in the same household.

In household on the base of RFILE there is R\_16 persons aged 16 and over. According to PFILE data on incomes was provided for P\_16 persons.

Inflation factor on the base of assumption equals ratio of persons aged 16 and over living in household and persons, who provided information on income:

$$HY025 = R_{16} / P_{16}.$$

#### **HY030G– Imputed rent**

This variable was observed as voluntary in EU SILC 2005 and 2006 .

Calculation of income variable was done only in order to test and ensure coherence on national level. Item was not included into variable HY010.

In calculation of imputed rent we resulted from elaborated feasibility study „Testing of Methods of Imputed Rent Estimation for EU-SILC in the Slovak Republic” in EU SILC 2006-2009 surveys.

As results of realized researches in elaborated feasibility study, but also Population and Housing Census 2001 show that the share of the privately-owned dwellings and houses rented at the market price represents about 3 % of the total number of dwellings in Slovak Republic, the conclusion recommended was to use user-cost method for estimation of imputed rent under Slovak conditions.

In estimating the imputed rent by user-cost method there was computed net operating surplus from the imputed rent, which is estimated from the average net stock of the value of dwellings.

In estimating the net stock of the value of dwellings, there was used following approach:

2. The quantitative data on owner-occupied dwellings stratified by region, location (rural/urban area), dwelling type (own house/own dwelling), age (individual categories of age), and dwelling size (dwelling with one room, two rooms, ...five rooms) are drawn.

Quantitative data was corrected on the basis of actual quantitative data from 2001 Census (data from Census 2001 - numbers of privately-owned houses and dwellings are updated according to the statistics of completed houses and dwellings)

2. To these data there were found out prices of dwellings/houses from administrative sources and there was determined price of dwelling/houses. Net operating surplus was determined through applying relevant percentage (2,5 %), which was used from data of National Accounts.

#### **HY040G– Income from rental of property or land**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

Within EU SILC 2006 – 2009 surveys variable HY040G was collected using direct question about gross annual amount for rental of property or land.

Question allowed to use income interval in the case, if respondent did not know exactly to provide the sum obtained as income from rental of property or land. Result variable, if it was obtained through income intervals, was calculated as average value within used interval.

#### **HY050G– Family/children-related allowances**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

The variable Family/children-related allowances is considered as an income at the household level. In connection with the national legislation, where one member of the household sharing of expenditures can receive more allowances in connection with care of child, the variable was collected on personal level. The total household income from component family allowances has represented the sum of family allowances provided to all entitled persons in household in the income reference period.

Within the variable HY050G, these components were followed:

- child allowance, parental allowance, subsistence contribution (with validity expired from 2007), maternity allowance, lump-sum and regular foster care benefits, equalising contribution, other cash benefits (contribution to the parents of triplets (or more children born simultaneously) or to the parents of sets of twins born within a two year period), child-birth contribution, bonus to child-birth contribution (since the year 2007) and bonus to child allowance (since the year 2008).

### **HY060G – Social exclusion payments not elsewhere classified**

Within this variable, generally there were collected and calculated these components for EU SILC 2006 - 2009:

- material need assistance (*benefit for material need assistance* including benefits paid together in form of joint sum with mentioned benefit – *activation benefit, housing allowance, health-care allowance including allowance to health care for a child up to the age of one year with effect from 2008*) and *protection benefit*),
- scholarship (merit and social scholarship),
- other cash benefits (lump-sum or regular cash benefits provided to household by municipality or by other entity).

Component *scholarship* within EU SILC 2006 - 2009 was in order to ensure better lucidity and data comparability between individual waves of EU SILC observed in more detailed structure, i.e. as two separate items:

- a) scholarship for students of elementary schools (including special elementary schools),
- b) scholarship for students of secondary schools, special schools, vocational schools and training centres,

In 2005 within variable HY060G there were also collected social scholarships for university students. For their inclusion in this variable we resulted from legislative act, in terms of which income of student (and other persons qualified together with that person) is considered as determining factor for assessment of social scholarship. However as amount of providing social scholarship for university students depends on income falling on household member and so in connection with this fact, title to this scholarship can have not only persons situated in material need, the consequence was that from EU SILC 2006 we decided to collect social scholarships for university students within variable PY140G Education-related allowances.

Based on mentioned above, for EU SILC 2006 - 2009 there were collected and taken into account only those scholarships for elementary a secondary school students, which were provided in order to reduce and help social situation of households situated in material need.

### **HY070 G – Housing allowance**

On national level this housing allowance exists as social benefit, which however could be observed only as inseparable part of material need assistance. By this reason in longitudinal databases L2009 this housing allowance is taken into account in variable HY060G.

In variable HY070 we collected only non-refundable contribution from the State Housing Development Fund due to fact mentioned above. Non-refundable contribution is provided to applicant, if he/she ensures dwelling for disability person in order to compensation of higher costs in comparison with barrier building.

### **HY080G – Regular inter-household transfers received**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

In EU SILC 2006 - 2009 regular cash inter-household transfers received were collected in detailed structure as:

- compulsory alimony and child support (including subsidiary alimony),
- voluntary alimony and child support,
- regular cash support from persons other than household members (e.g. cash support from the side of grand parents),
- regular cash support from households abroad (e.g. from relatives living abroad).

Within variable HY080G in EU SILC 2006 - 2009 there was collected and taken into account subsidiary alimony. Entitled person, to whom the person compulsory to pay alimony for child on the base of legal lex judicialis does not pay this alimony at least three consecutive months, can ask for payment of subsidiary alimony. Providing subsidiary alimony compulsory person has to return it to state.

Data for individual income components mentioned above was add together to create final variable HY080G.

### **HY081G – Alimonies received (compulsory + voluntary)**

Variable HY081G is applied from EU SILC 2008. It was defined in accordance with Doc. EU SILC 065 (2008 operation) and includes both components of alimony received on compulsory and voluntary basis:

- compulsory alimony and child support (including subsidiary alimony),
- voluntary alimony and child support.

### **HY090G – Interest, dividends and profit from capital investments in unincorporated business**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

In EU SILC 2006 – 2009 surveys there were collected separately income components, which are not taxed (dividends, share of profits of sleeping partner) and those ones, which are liable to tax on income (interest, profits from capital investments).

In the case of all waves of the survey EU SILC, if respondent did not know exactly to give the sum received from interest, dividends and profits from capital investments, the value could have been estimated using proposed intervals.

Range of intervals has been remained unchanged since 2006.

In the case of values received through intervals, the result variable HY090G was calculated as average value within used interval.

### **HY100G – Interest paid on mortgage**

In accordance with valid methodological document EU SILC 065 for relevant years of the survey variable HY100G was not taken into account into HY010 and data was provided only on level of relevant income variable.

On the base of evaluation and analyses of results of variable HY100G from EU SILC 2005, where the values of interest paid on mortgage were collected by direct question in household questionnaire, we decided for the year 2006 to calculate result variable through procedure, which is in accordance with document EU SILC 105/02. Into formula for calculation of variable HY100G we took into account subsidiary variables in household questionnaire: year where the mortgage stated, total mortgage instalment (including principal and interest), initial amount of mortgage (amount of principal), number of years of mortgage payment, interest rate. The same solution of variable HY100G was carried out in subsequent years EU SILC 2007, 2008 and 2009.

### **HY110G – Income received by people aged under 16**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

### **HY120G – Regular taxes on wealth**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

### **HY130G – Regular inter-household transfers paid**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

Within EU SILC 2006 - 2009 there were regular cash inter-households transfers paid collected in detailed structures as:

- compulsory alimony and child support,
- voluntary alimony and child support,
- regular cash support to persons other than household members (e.g. cash support from the side of grand parents, children and etc.),
- regular cash support to households abroad (e.g. to relatives living abroad).

Data for individual income components mentioned above was add together to create final variable HY130G.

### **HY131G – Alimonies paid (compulsory + voluntary)**

Variable HY131G is applied from EU SILC 2008. It was defined in accordance with Doc. EU SILC 065 (2008 operation) and includes both components of alimony paid on compulsory and voluntary basis:

- compulsory alimony and child support,
- voluntary alimony and child support.

### **HY140G – Tax on income and social insurance contributions**

They are taxes on income and social insurance contributions for the calendar year, which precedes the year, in which was realized personal interview – for EU SILC 2006 calendar year 2005, for EU SILC 2007 calendar year 2006, for EU SILC 2008 calendar year 2007 and for EU SILC 2009 calendar year 2008.

The tax liability and liability for service for the relevant calendar year was performed at the beginning of the calendar year (to 31-st March of relevant year) succeeding to year, for which the tax liability and liability for service is related to.

The tax liability and liability for service for the calendar year 2005 was performed in the year 2006 (EU SILC 2006), for the calendar year 2006 in the year 2007 (EU SILC 2007), for calendar year 2007 in the year 2008 (EU SILC 2008) and for calendar year 2008 in the year 2009 (EU SILC 2009).

Concerning the period of data collection within fieldwork (April 2006, 2007, 2008 and 2009) the tax adjustment was taken into account in EU SILC survey.

Within EU SILC 2005 taxes on income were collected directly from respondents and in questionnaire they were listed together at individual taxed income components.

On the base of non-response rate and quality of provided data we decided from the year 2006 to whole calculation of taxes on income from dependant activity, incomes from self-employment, incomes from rental of property or land, incomes from capital investments and other incomes, e.g. incomes from occasional activities). The same procedure was used in subsequent years EU SILC 2007, 2008 and 2009. There was used unitary tax 19 %.

We calculated also social insurance contributions in the case of employees on the base of premium rates valid according to Act No. 595/2003 on tax on income. In the case of income from self-employment, social insurance contributions were collected by direct question in questionnaire.

In order to data calculation, in questionnaire on personal level there was created separate block of questions aimed at collection of those items needed for calculation of taxes on income. Here we collected information on non-taxable parts of tax assessment base for tax payer, for spouse/husband of tax payer and others non-taxable parts of tax assessment base (paid contributions to supplementary pension saving and financial resources paid for specific saving), which could be deducted from tax assessment base. For calculation of this variable, the tax-bonus was taken into account too.

Tax-bonus is allowance, which is paid on the base of Act No.595/2003 on taxes on income and it serves in order to decrease taxes on income in case of employee and entrepreneur (self-employed person). Entitlement to receive tax bonus has taxpayer (only one of working parents), to each dependant child, who lives with that parent in common household.

In connection with the fact that the amount of tax-bonus is deducted from taxes on income to decrease them, in longitudinal databases L2009 this income component was taken into account in variable HY140G Tax on income and social insurance contributions.

### **HY145N – Repayments/receipts for tax adjustments**

Data from EU SILC 2006 - 2009 is taken into account within variable HY140G and they are not provided as separate relevant income component .

### **PY010G – Cash or near-cash employee income**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

In solution of variable PY010G the most significant changes were made within EU SILC 2006 survey. Questions related to employee income were distinguished more digestedly by separate section of questions and in order to calculation of taxes on income and social insurance contributions we collected more detailed structure of employee income. There were also distinguished more digestedly occasional incomes, income on the base of work performance agreement and income earned abroad.

Since 2006 we have started to give an amount using income interval. Range of income intervals was adjusted on the base of analyses of gross annual sum within PY010G from EU SILC 2005. If values were obtained through income intervals, the result variable was calculated as average value within used interval. Intervals for estimation of annual amount of wage were applied in subsequent years EU SILC 2007, 2008 and 2009 as well.

According to EU SILC methodology – Doc. EU SILC 065 - income components *severance pay and retirement benefits* should be collected as part of social benefits. Severance pay should be included in variable PY090G (Unemployment benefits) and retirement benefits in variable PY100G (Old-age benefits).

However under relevant national legal enactment – Labour Code – payment as *severance pay and retirement benefits* is paid by employer as a part of gross wage. Hence in longitudinal databases L2009 both income components were collected in personal questionnaire within questions related to variable PY010G (Cash or near-cash employee income).

In order to ensure data comparability with data of other Member States in accordance with document EU SILC 065 for relevant years of the survey, for relevant years EU SILC 2006 - 2009 these income items were added to as following:

- *severance pay* to variable PY090G (Unemployment benefits),
- *retirement benefits* in variable PY100G (Old-age benefits).

Since EU SILC 2008 cash housing allowances paid by employer, i.e. cash form provided by employer in order to compensate housing costs, were collected in this variable. Accommodation provided free or at reduced rent by employer to employee as the main residence, i.e. housing provided like non-cash employee income by employer, was not included in PY010G, but in accordance with Doc. EU SILC in variable PY020G.

### **PY020G – Non-cash employee income**

By reason of implementation of new separate variable PY021G (Company car) from 2007 and in order to ensure comparability of data among relevant years, in longitudinal databases L2009 information on company car from EU SILC 2006 is recorded in variable PY021G. Variable PY020G was not applied in EU SILC 2006

(PY020G\_F=-2), because other non-cash employee income components are compulsory from 2007.

For the year 2006 we collected in questionnaire several components of non-cash employee income, however we provided only data on company car as a non-cash employee income (recorded in PY021G).

From EU SILC 2007 onwards the other components of non-cash employee income, compulsory from 2007, including benefit from using company car were taken into account in this variable PY020G. Moreover separate information on company car for EU SILC 2007, 2008 and 2009 is provided in variable PY021G.

For EU SILC 2006 - 2009 there were collected these non-cash income components:

- luncheon vouchers including contribution to meals consumed at canteen,
- reimbursement of gas, electricity, water,
- reimbursement of telephone, mobile
- other non-cash benefits (e.g. benefit for sport, language courses, discount for company goods or services, providing vouchers for purchase of goods and others.),
- accommodation provided free or at reduced rent by the employer as the main residence (since EU SILC 2008).

### **PY021G – Company car**

In order to ensure data comparability of variable “benefit from using company car” there was in 2007 created new variable PY021G.

For individual years of EU SILC survey benefit from using company car for personal purposes was estimated on the basis of depreciated price of company car for actual year and other cash benefits, which were provided by employer in connection with car for personal purposes – benefit paid for petrol, benefit related to compulsory car insurance and repair and maintenance benefits. As input components for estimation of depreciated price of car for the actual year was market price of new car, period of amortisation established by law (4 years) and age of car (on the basis of year of production). Market price of car for relevant year was updated according to available external sources.

$\frac{1}{4}$  of price of new car is depreciated from price of new car every year. Theoretically depreciated price of 5-year car would equal 0. Practically older cars are used too and their actual depreciated price does not equal 0. Depreciated price of cars older than 4 years was calculated in such a way that  $\frac{1}{4}$  of price of new car was divided by age of car overlapping 3 years (because for the period of 4 years, there is assigned  $\frac{1}{4}$  of the price).

Total benefit from using company car represents the sum of estimated depreciated price of company car, benefit paid for petrol, benefit related to compulsory car insurance and repair and maintenance benefits.

In comparison of data from EU SILC 2006 more considerable differences in values within variable PY021G occurred, because more rigorous amortization in individual types of cars was taken into account.

In EU SILC 2007, 2008 and 2009 there was used the same rigorous method for amortization of individual types of cars as in EU SILC 2006, so the differences within variable PY021G between EU SILC 2006 and 2007 were eliminated in large extent.

### **PY030G – Employers' social insurance contributions**

As variable PY030G is compulsory from 2007, data are provided on level of relevant income component only for years 2007, 2008 and 2009.

Employers' social insurance contributions were calculated on the base of elaborated study „EU SILC: Feasibility study to variable Employers' social insurance contributions“. Variable comprises only of compulsory employers' social insurance contributions.

### **PY050G – Cash profits or losses from self-employment (including royalties)**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

Since EU SILC 2006 we have used two approaches for obtaining information on variable PY050G:

1. The first approach: data was collected directly from respondents by asking about profit/loss of their self-employment for the period of the last calendar year. If respondents had profit, they could have give this annual amount as gross or net profit.

If respondent did not know to give the sum of obtained income exactly (gross profit/loss), for statement of the amount of gross profit/loss he/she had option to made estimation by using income intervals.

Income intervals range has not been changed since EU SILC 2006 onwards, i.e. remained the same as they were proposed for EU SILC 2006.

If values were received through income intervals, the output variable was calculated as average value within used interval.

2. Information on variable PY050G (second approach) was also obtained through direct question about amount of lump-sum and regular cash resources from self-employment used for personal purposes.

In the case if respondent used for giving his/her profit/loss only one of approaches mentioned above, output variable PY050G was stated on the base of either direct statement of annual sum of profit/loss, used interval or on the base of annual sum of lump-sum and regular cash resources.

In the case that respondents used all questions (all approaches) related to expression of information on profit/loss (i.e. through direct statement of annual sum of profit/loss, but also giving annual sum of lump-sum and regular cash resources used for private purposes), output variable PY050G was stated on the base of that annual amount, which was higher.

In data processing some cases of negative income have occurred in all years of EU

SILC survey.

**PY070G – Value of goods produced for own consumption**

Within variable there was collected annual amount (value) of goods produced and intended for own consumption of household. Value was calculated on the base of basic market price of these products after deducting direct costs, which were paid in order to their production.

Variable was collected on household level. It is difficult to obtain given information on individual level without elimination of duplicity. However according to EU SILC definition, this variable should be provided on individual level, obtained data was assigned to head of the household.

**PY090G – Unemployment benefits**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

This variable was collected for individual years of EU SILC survey in detailed structure and it included these items:

- unemployment benefit,
- other periodical cash allowances and benefits (subsidy on pursuance of graduates' practise, grant on services for family with children to the job applicant, contribution related to commutation, contribution for extended employment of policeman or professional soldiers, since EU SILC 2008 there was collected benefit for reimbursement of travelling expenses in the case of job procurement relating to attendance at job interview at employer' company). As new benefits collected in EU SILC 2009 were: benefit for reimbursement of part of travel costs connecting with participation of job applicant in activities within special advisory services and benefit for incorporating of disadvantage job applicant in order to gain practical experience and work habits in job.
- other lump-sum cash payments (self-employment activity benefit, severance pay and redundancy payment (financial amount paid in case of lay off, not due to own infliction by employer, who stops or decreases his activities), remuneration of wage in the case of invalid dismissal). As new lump-sum benefit in EU SILC 2009 was included benefit related to moving due to job, which serves as reimbursement of part of costs, which job applicant paid in connection with moving from permanent address to place of his/her job.

Income variable *severance pay* was collected for EU SILC 2006 - 2009 in personal questionnaire within questions related to variable PY010G (Cash or near-cash employee income). Under national legal enactment - Labour Code - severance pay is paid by employer to employee as part of gross wage in the case of termination of employment through resignation by reason of cancel of relocation of employer or part of his corporation, by reason of redundancy of employee in the case of reorganization changes within employer's company or long-term bad health condition of employee, for which he/she is not able to continue present working activity. However in accordance with valid EU SILC methodology severance pay is in

longitudinal databases taken into account within variable PY090G for all years of EU SILC 2006 - 2009.

### **PY100G – Old-age benefits**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

This variable was collected in detailed structure and it included these items:

- old-age pension,
- early retirement pension,
- pension for extended employment,
- other periodical cash old-age benefits (extra payment to the pension of judge and lay judge, prosecutor, employee of the fire department, extra payment for civil service, remuneration of loss related to pension for extended employment in the case of policeman and soldier, other periodical allowances provided to respondent by the municipality, non-profit organizations or by other entities in the case of emergency and unfavourable social situation),
- other lump-sum old age benefits and allowances (retirement benefits, lump-sum benefit from municipality, non-profit organization or other entity, Christmas contribution).

Income variable *retirement benefits* was collected for EU SILC 2006 to 2009 in personal questionnaire within questions related to variable PY010G (Cash or near-cash employee income). Under national legal enactment – Labour Code – retirement benefit is paid by employer to employee as part of gross wage in the case of the first determination of employment after gaining of pension right, disability pension or pension for extended employment. However in accordance with valid EU SILC methodology, there is retirement benefit taken into account within variable PY100G for all years of EU SILC 2006 - 2009.

### **PY110G – Survivors' benefits**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

The variable was collected in detailed structure and it included these items:

- widow's and widower's pension,
- orphan's pension,
- other periodical cash benefits (survivors' accident annuity, compensation of living costs of survivors),
- funeral allowance,
- other lump-sum cash benefits (lump-sum reparation for survivors of policeman or soldier, remuneration of costs in purpose of covering of cost of treatment).

### **PY120G – Sickness benefits**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

This variable was collected in detailed structure and it included these following items:

- sickness benefit,

- allowance for care of family member,
- other cash benefit (accidental allowances – periodical and lump-sum, extra payment to sickness and nursing allowances, compensation for loss in the service salary of policeman or the service income of the professional soldier, lump sum special reimbursement).

Sickness benefit is provided on the base of sickness insurance of the employee from the 11-th day of his/her temporary working disability. For the first 10 days of working disability the employer provides compensation of income to employee in the case of temporary working disability. The compensation of income in this case of temporary working disability is followed within the variable PY010G.

In order to ensure more easily checking of data quality and comparability with external sources, we collected also information on number of months for which relevant benefit was received in items of variable PY120G within EU SILC 2006 – 2009.

### **PY130G – Disability benefits**

Variable was defined in accordance with document EU SILC 065 for relevant year of the survey.

This variable was collected in detailed structure and it included following items:

- disability pension,
- cash disabled person´s allowance  
(on diet catering, increased costs related to hygiene or the wear-out of clothes, underclothes, footwear, operation of the private motor car, care of dog with special training),
- periodical financial contributions for compensation  
(transport allowance and the allowance on personal assistance),
- other periodical cash benefits  
(contribution for personal assistant of self-employed person, who is disabled), other periodical monetary allowances provided by the municipality or by other entity),
- nursing allowance,
- lump-sum financial contributions for compensation  
(contribution for the purchase of special aids, for the repair of special aids, for the purchase of a motor vehicle, for modifying an apartment, family house, garage),
- other lump-sum cash benefits  
(Christmas allowance, subsidy to a disabled person for the operation or performance of self-employment activities and for compensation of costs related to transportation for employees and lump-sum benefits provided by the municipality or by other entity).

Data for income variables mentioned above was add together to create final variable PY130G.

### **PY140G – Education-related allowances**

Education-related allowances included grants, scholarships (e.g. paid from own

sources of university) and other support of education received by students.

Within this variable we also collected social scholarships for university students, which are paid as merit scholarship or special scholarship since EU SILC 2006 onwards (in EU SILC 2005 were part of HY060G). The aim of providing scholarship is to help students situated in unfavourable economical situation, but also as appreciation and support of significant results and activities in education, scientific and art area and representation of university on the field of culture and sport.

The amount of social scholarship depends on income falling on household member and is granted to students on the base of excellent educational results or extraordinary results in scientific, art or sport activities. Title to scholarship has not only citizen who are in material need.

Scholarships and similar benefits which are paid only in terms of income of persons, who are in material need, are included into variable HY 060G.

### **PY200G – Gross monthly earnings for employees**

On national level this variable was collected, but due to EU SILC survey is not a source for calculation of unadjusted gender pay gap in Slovakia, this variable was recorded in longitudinal databases L2009 only on national level.

### ***3.2.2. The source or procedure used for the collection of income variables***

Total gross income and disposable household income was calculated in accordance with Eurostat recommendations and methodological guidelines Doc. SILC 065 for relevant years of the survey (operations). In longitudinal databases L2009 variable PY080G was taken into account in aggregates incomes HY010 to HY023 only for the year 2007.

### **3.2.3. The form in which income variables at component level have been obtained (e.g. gross, net of taxes on income at source and social contributions, net of tax on income at source, net of social contributions)**

Within EU SILC 2006 - 2009 income variables on component level were collected on the base of interview.

Since January 1-st 2009 there is used common currency – EUR due to integration of Slovak Republic into Euro-zone. However in EU SILC 2009, as income reference period was previous calendar year 2008, all income components were collected in currency valid for calendar year 2008 (in Slovak crowns – SKK). Only two income components were exceptions – real estate tax and repayment/receipt for tax adjustment – with the possibility to provide information on them in both currencies SKK and EUR, as tax liability for calendar year 2008 (based on income earned in calendar year 2008) falls in year 2009, where taxes were provided in dual form.

On the base of Eurostat requirement, all income variables of longitudinal databases L2009 for all years 2006 to 2009 were recalculated into common currency EUR. In

recalculation of income components we used following converse rates:

EU SILC	Income reference period	Converse rate 1 EUR = ... SKK
2006	2005	38.599
2007	2006	37.234
2008	2007	33.775
2009	2008	30.126

### **3.2.4. The method used for obtaining income target variables in the required form (i.e. as gross values)**

In all years of EU SILC survey all income data was recorded as gross on component level.

## **3.3 Tracing rules**

### **Procedure of tracing of households and persons:**

1. If whole household moved out, interviewer had to find out its new address by all available sources. This information could be obtained from neighbours or relatives, municipal/communal office and others. Interviewer provide new address of household, name and surname of the head of the household in relevant form and also filled ID number of household and this form gave to coordinator of the Regional Office in period at least 3 days. Consequently coordinator decided on another procedure to continue in this circumstance.
2. Similarly interviewer proceeded in the case of one or more selected persons moved out. Basic source of information on place of moving of selected person/persons was information received from other household members. For each person moved out interviewer completed relevant form, where was listed new address of this person again, his/her name and surname, household ID and personal ID.
3. In the case if interviewer was entrusted to collect data for household or person moved out, needed information was received from coordinator of the relevant Regional Office.

## 4 COHERENCE

### 4.1 Comparison of income target variables and number of persons who receive income from each 'income component' with administration sources

In EU SILC survey, achieved values were compared with information from administration sources:

- a) other surveys of the SO SR: LFS, HBS, Census 2001, Movement of the Population of the SO SR, Structure of Earnings Survey (SES),
- b) administration sources (Social Insurance Agency, Ministry of Finance, Ministry of Labour Social Affairs and Family)

Within EU SILC (year 2006-2009) there were incomes collected in detailed structure (especially concerning social benefits) and it was in order to ensure simpler comparability of data with external sources and imputation of income components in the case of non-response.

In comparison of data in general we could say that there is good coherence of data with external sources in the case of regular received benefits, but in the case of lump-sum benefits there occurred more evident differences.

#### 1. Comparison of some target variables from EU SILC 2006 - 2009 surveys with HBS 2006 - 2009 surveys:

**Table 36**  
Equipment of the household by selected durables

Selected durables	Year 2006		Year 2007		Year 2008		Year 2009	
	EU SILC	HBS						
Telephone	94.7	96.0	95.7	97.4	94.7	97.4	96.8	98.3
Colour TV	98.0	99.2	98.3	99.6	98.7	99.7	98.9	99.7
Computer	43.1	40.3	45.7	45.5	50.9	52.8	57.8	56.8
Washing machine	96.4	88.3	96.6	91.2	96.8	92.5	97.6	93.0
Car	51.8	51.5	49.5	51.3	52.1	54.8	55.9	58.1

**Table 37**  
Comparison of households structure by household type EU SILC 2009 with HBS 2009:

Household type	EU SILC 2009		HBS 2009	
	number	%	number	%
Single	454 065	23.8	424 658	22.2
2 adults - both < 65 years rokov	229 954	12.0	236 632	12.4
2 adults - at least one 65+ years	198 876	10.4	178 102	9.3

Other households without dependent children	360 474	18.9	169 016	8.8
Single parent, at least 1 dependent child	28 432	1.5	46 535	2.4
2 adults, 1 dependent child	161 254	8.4	208 384	10.9
2 adults, 2 dependent children	158 931	8.3	318 274	16.7
2 adults, 3 dependent children	37 353	2.0	109 033	5.7
Other households	282 326	14.8	221 029	11.6
<b>TOTAL</b>	<b>1 911 664</b>	<b>100.0</b>	<b>1 937 631</b>	<b>100.0</b>

**Table 38**  
**Comparison of population structure by age EU SILC 2009 with HBS 2009**

Age structure	EU SILC 2009	HBS 2009
	%	
<b>TOTAL</b>	100.0	100.0
<b>0 - 14</b>	13.0	17.1
<b>15 - 24</b>	16.5	16.2
<b>25 - 54</b>	44.3	43.3
<b>55 - 64</b>	12.9	12.0
<b>65 +</b>	13.4	11.4

## 2. Comparison of some target variables from EU SILC 2006-2009 surveys:

**Table 39**  
**PE040 Highest ISCED level attained**

	EU SILC 06	EU SILC 07	EU SILC 08	EU SILC 09
<b>1 - primary education</b>	1.4	1.0	1.0	0.8
<b>2 - lower secondary education</b>	16.9	17.0	15.7	14.6
<b>3 - upper secondary education</b>	67.0	66.8	66.6	66.2
<b>4 - post-secondary non tertiary education</b>	0.0	0.0	1.8	1.7
<b>5 - first stage of tertiary education</b>	14.1	14.4	13.9	15.8
<b>6 - second stage of tertiary education</b>	0.5	0.5	0.5	0.5
<b>missing</b>	0.1	0.3	0.5	0.4

**Table 40**  
**PL030 Self-defined current economic status**

	EU SILC 06		EU SILC 07		EU SILC 08		EU SILC 09	
	%	total	%	total	%	total	%	total
<b>Employed (PL030 = 1,2) for EU SILC 2009 (PL031=1,2,3,4)</b>	53.5	2 383 009	53.4	2 442 538	54.8	2 510 460	53.3	2 470 225

<b>Unemployed (PL030 = 3) for EU SILC 2009 (PL031=5)</b>	6.9	306 884	5.2	236 846	4.4	203 628	5.8	269 324
	<b>EU SILC 06</b>		<b>EU SILC 07</b>		<b>EU SILC 08</b>		<b>EU SILC 09</b>	
	%	total	%	total	%	total	%	total
<b>Economically inactive (PL030=4,5,6,7,8,9) for EU SILC 2009 (PL031=6,7,8,9,10,11)</b>	39.6	1 760 241	41.4	1 889 962	40.7	1 863 759	40.9	1 898 301

**Table 41**

**PL040 Status in employment**

(PL030=1,2), for EU SILC 2009 (PL031=1,2,3,4)

	<b>EU SILC 06</b>		<b>EU SILC 07</b>		<b>EU SILC 08</b>		<b>EU SILC 09</b>	
	%	total	%	total	%	total	%	total
<b>Employed (PL030 = 1,2) for EU SILC 2009 (PL031=1,2,3,4)</b>	100.0	2 383 009	100.0	2 442 538	100.0	2 510 460	100.0	2 470 225
- employees	90.0	2 144 081	90.4	2 208 249	90.1	2 263 077	89.6	2 212 881
- self-employed without employees	7.1	169 053	7.4	180 407	7.4	186 708	8.5	209 997
- self-employed with employees	2.8	65 672	2.2	53 565	2.4	59 626	1.9	47 347
- family worker	0.0	312	0.0	0	0.0	662	0.0	0
- missing	0.2	3 891	0.0	317	0.0	387	0.0	0

**Table 42**

**PL050 Employed by Classification of Occupation – ISCO-88 (COM)**

(PL030=1,2), for EU SILC 2009 (PL031=1,2,3,4)

	<b>EU SILC 06</b>	<b>EU SILC 07</b>	<b>EU SILC 08</b>	<b>EU SILC 09</b>
	%	%	%	%
<b>Employed (PL030 = 1,2) for EU SILC 2009 (PL031=1,2,3,4)</b>	100.0	100.0	100.0	100.0
- Legislators. senior officials and managers	5.1	5.5	5.2	5.5
- Scientists and brain workers	11.3	11.6	13.1	13.9
- Technical. medical. pedagogical and related fields professionals	18.8	18.8	21.6	22.8
- Administrative workers (officials)	9.0	8.4	8.8	9.2
- Workers in services and trade	12.7	12.9	12.8	13.0
- Qualified workers in agriculture. forestry and related fields	1.7	1.4	0.8	0.6
- Craftsmen and qualified producers. repairmen	17.5	17.5	17.9	16.6
- Plant and machine operators	12.2	12.6	12.4	11.9
- Supporting and non-qualified staff	11.8	11.3	7.1	5.9
- Armed forces	-	-	-	0.3
- missing	-	-	0.3	0.4



**Table 43 Comparison of selected income components from EU SILC to administrative source**

Income components		EU SILC				External data for			
		2006	2007	2008	2009	EU SILC 2006	EU SILC 2007	EU SILC 2008	EU SILC 2009
		Total amount (in EUR*)				Total amount (in SKK)			
SPY0101	Gross wage from main occupation	9 681 586 984	11 178 642 806	13 584 971 099	17 169 243 728				
<b>PY090G</b>	<b>Unemployment benefits</b>	<b>90 095 660</b>	<b>65 064 556</b>	<b>75 671 135</b>	<b>101 470 507</b>				
of which									
SPY0901	Unemployment benefit	51 098 952	34 194 263	36 663 210	54 886 577	63 207 907	51 767 578	53 208 818	66 273 418
<b>PY100G</b>	<b>Old – age benefits</b>	<b>2 648 797 125</b>	<b>2 968 179 799</b>	<b>3 461 229 749</b>	<b>4 192 639 919</b>				
of which									
SPY1001	Old – age pension	2 507 867 153	2 749 318 174	3 145 585 016	3 850 561 928	2 018 372 186	2 257 845 974	2 702 419 956	3 222 656 377
SPY1003	Early old-age pension	39 107 481	65 765 503	71 835 550	119 882 272	36 115 417	97 034 001	144 294 774	218 704 674
<b>PY110G</b>	<b>Survivor’s benefits</b>	<b>296 969 050</b>	<b>316 553 131</b>	<b>352 490 451</b>	<b>353 448 875</b>				
of which									
SPY1103	Orphans’ pension	25 469 732	25 322 568	27 924 001	20 101 673	22 790 850	26 667 481	36 379 186	41 584 512
SPY1101	Widow’s and widower’s pension	268 778 371	288 450 548	300 726 963	330 607 712	303 426 229	338 006 499	407 482 902	488 647 647
<b>PY120G</b>	<b>Sickness benefits</b>	<b>41 622 724</b>	<b>50 894 125</b>	<b>54 716 576</b>	<b>82 292 615</b>				
of which									
SPY1201	Sickness benefit	37 052 868	47 930 841	45 718 370	77 388 272	88 881 707	104 985 766	131 699 974	183 203 047
<b>PY130G</b>	<b>Disability benefits</b>	<b>382 758 342</b>	<b>473 732 994</b>	<b>530 761 192</b>	<b>607 896 976</b>				
of which									
SPY1301	Disability pension	315 339 677	383 335 163	427 550 336	507 101 378	329 242 157	372 594 349	455 360 385	560 347 972

Administrative source: Social Insurance Agency, Ministry of Finance, Ministry of Labour, Social Affairs and Family

EU SILC 2006 UDB rev2 version 13/02/2009, EU SILC 2007 UDB version 28/04/2009, EU SILC 2008 UDB version 10/09/2009, EU SILC 2009 UDB version 17/12/2010.

\* Administrative data and data for EU SILC 2006, 2007, 2008 and 2009 are recalculated using following converse rates: 38.599 (for EU SILC 2006), 37.234 (for EU SILC 2007), 33.775 (for EU SILC 2008) and 30.126 (for EU SILC 2009).

